4188

PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
RRV1057

CD CDV LD PLAYER

CLD-900

CLD-900S

- **Refer to the service manual ARP2543 for CLD-1700/HEZ and CLD-700/HEZ.**

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	The voltage can be converted by the following method.
	CLD-900	CLD-900S		
HEZ	○	–	AC220-230V	AC240V, *
HB	○	–	AC240V	AC220-230V, *
HEZW/SP	–	○	AC220-230V	AC240V, *

* : Alter the wiring of the Power-supply block at the primary winding of Power transformer referring to the "Line Voltage Selection" described in Service Manual.

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CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits(any digit apart from 0), such as 560 ohm and 47k ohm(tolerance is shown by J=5%, and K=10%).

560 Ω → 56×10^1 → 561 ·· RD1/8PM$\boxed{5}\boxed{6}\boxed{1}$J
47k Ω → 47×10^3 → 473 ·· RD1/4PS$\boxed{4}\boxed{7}\boxed{3}$J
0.5 Ω → 0R5 ·· RN2H$\boxed{0}\boxed{R}\boxed{5}$K
1 Ω → 010 ·· RS1P$\boxed{0}\boxed{1}\boxed{0}$K

Ex.2 When there are 3 effective digits(such as in high precision metal film resistors).

5.62k Ω → 562×10^1 → 5621 ·· RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

CLD-900/HEZ, HB, CLD-900S/HEZW/SP and CLD-1700/HEZ have the same construction except for the following :

Mark	Symbol & Description	Part No.				Remarks
		CLD-1700/ HEZ	**CLD-900/ HEZ**	**CLD-900/ HB**	**CLD-900S/ HEZW/SP**	
◉	MOTHER assy	VWM1396	VWM1458	VWM1458	VWM1458	
NSP	MAIN assy	VWX1182	• • • • •	• • • • •	• • • • •	
	MAIN assy	• • • • •	VWX1207	VWX1207	VWX1207	
NSP	AUDIO assy	VWX1124	• • • • •	• • • • •	• • • • •	
	AUDIO assy	• • • • •	VWX1208	VWX1208	VWX1208	
◉	SCRB assy	VWV1248	• • • • •	• • • • •	• • • • •	
NSP	SCRB assy	• • • • •	VWV1352	VWV1352	VWV1352	No. 1
◉	FLKB assy	VWM1278	• • • • •	• • • • •	• • • • •	
NSP	FLKB assy	• • • • •	VWM1472	VWM1472	VWM1472	
NSP	FLKY assy	VWG1336	• • • • •	• • • • •	• • • • •	
	FLKY assy	• • • • •	VWG1523	VWG1523	VWG1523	No. 25
NSP	PSWB assy	VWG1315	• • • • •	• • • • •	• • • • •	
NSP	PWSB assy	• • • • •	VWG1526	VWG1526	VWG1526	No. 26
NSP	HEPB assy	VWV1254	• • • • •	• • • • •	• • • • •	
◉	SYPS assy	VWR1146	• • • • •	• • • • •	• • • • •	
	SYPS assy	• • • • •	VWR1177	VWR1178	VWR1177	No. 2
	Door spring	VBH1202	VBH1223	VBH1223	VBH1223	No. 27
	Connection cord	VDE-055	• • • • •	• • • • •	• • • • •	
	Euro scart cable (21P)	VDE1027	• • • • •	• • • • •	• • • • •	
⚠	AC power cord	VDG1028	• • • • •	• • • • •	• • • • •	
⚠	AC power cord HE	• • • • •	PDG1003	• • • • •	PDG1003	No. 3
⚠	AC power cord HB plug	• • • • •	• • • • •	PDG1055	• • • • •	
	Disc pad	VEC1191	VEC1657	VEC1657	VEC1657	
	Disc pad (C)	VEC1380	VEC1658	VEC1658	VEC1658	
	FL lens	VEC1568	VEC1631	VEC1631	VEC1631	No. 37
	Cushion	VEC1578	• • • • •	• • • • •	• • • • •	
NSP	PC support	VEC1584	• • • • •	• • • • •	• • • • •	
	Pad (F)	VHA1105	• • • • •	• • • • •	• • • • •	
	Pad (R)	VHA1106	• • • • •	• • • • •	• • • • •	
	Protector A	• • • • •	VHB1004	VHB1004	VHB1004	No. 4

Note : The numbers in the remarks column correspond to the numbers on the exploded diagram. Refer to "EXPLODED VIEWS".

Mark	Symbol & Description	Part No.				Remarks
		CLD-1700/ HEZ	CLD-900/ HEZ	CLD-900/ HB	CLD-900S/ HEZW/SP	
	Protector B	• • • • •	VHB1005	VHB1005	VHB1005	No. 5
	Insulator	PNW1912	PNW1912	PNW1912	• • • • •	For front
	Insulator assy	• • • • •	• • • • •	• • • • •	DXA1490	For front
	Insulator assy	VXA1881	VXA1881	VXA1881	DXA1491	For rear
	LED lens	• • • • •	PNW2019	PNW2019	PNW2019	No. 6
NSP	Laser disc badge	• • • • •	VAM1029	VAM1029	VAM1029	No. 7
	Name plate	• • • • •	VAM1032	VAM1032	VAM1032	No. 8
	Packing case	VHG1260	VHG1341	VHG1342	VHG1348	
NSP	Rear panel	VNA1278	VNA1410	VNA1411	• • • • •	
	Rear panel	• • • • •	• • • • •	• • • • •	VNA1428	
	Snap plate	VNE1102	• • • • •	• • • • •	• • • • •	
	Jack holder	VNE1811	• • • • •	• • • • •	• • • • •	
	Door holder	VNE1812	VNE1905	VNE1905	VNE1905	No. 28
	FL filter	VNK1694	• • • • •	• • • • •	• • • • •	
	PW button	VNK2002	VNK2329	VNK2329	VNK2329	No. 29
	Volume knob	VNK2003	• • • • •	• • • • •	• • • • •	
	Tray panel	VNK2032	• • • • •	• • • • •	• • • • •	
NSP	Tray panel	• • • • •	VNK2319	VNK2319	VNK2319	No. 30
NSP	CD door	VNK2033	• • • • •	• • • • •	• • • • •	
	CD door	• • • • •	VNK2320	VNK2320	VNK2320	No. 31
	Sub panel	VNK2034	VNK2648	VNK2648	VNK2648	No. 32
	Main key	VNK2035	VNK2324	VNK2324	VNK2324	No. 33
	Ten key	VNK2036	VNK2331	VNK2331	VNK2331	No. 34
	Mode key	VNK2037	• • • • •	• • • • •	• • • • •	
	CD button	VNK2038	• • • • •	• • • • •	• • • • •	
	Shuttle knob	VNK2039	VNK2321	VNK2321	VNK2321	No. 35
NSP	Center panel	VNK2085	• • • • •	• • • • •	• • • • •	
	Skip key L	• • • • •	VNK2322	VNK2322	VNK2322	No. 9
	Skip key R	• • • • •	VNK2323	VNK2323	VNK2323	No. 10
	LED lens A	• • • • •	VNK2325	VNK2325	VNK2325	No. 11
	Tray assy-S	VXX1729	VXX2066	VXX2066	VXX2066	
NSP	LD tray	VNK1991	VNK2550	VNK2550	VNK2550	
	Operating instructions (English/French/German/Italian)	VRE1010	VRE1020	VRE1020	• • • • •	No. 12
	Operating instructions (Dutch/Swedish/Spanish/Portuguese)	VRF1017	VRF1026	• • • • •	• • • • •	No. 13
	Operating instructions (Spanish)	• • • • •	• • • • •	• • • • •	VRD1018	No. 14
NSP	Front panel	• • • • •	VNK2646	VNK2646	VNK2710	No. 15
NSP	Caution card (EW)	VRM1027	VRM1027	• • • • •	VRM1027	No. 16
NSP	Caution card	VRR1009	VRR1009	• • • • •	• • • • •	No. 17
NSP	Caution card (UC)	• • • • •	• • • • •	VRR1020	• • • • •	No. 18
NSP	Caution card (UC)	VRM1039	• • • • •	• • • • •	• • • • •	
	Front panel assy	VXA1867	• • • • •	• • • • •	• • • • •	
	Front panel assy-S	• • • • •	VXX2034	VXX2034	VXX2050	No. 19
	CD door assy-S	VXX1728	• • • • •	• • • • •	• • • • •	
	Center panel assy-S	VXX1757	• • • • •	• • • • •	• • • • •	
	Tray panel assy-S	• • • • •	VXX1931	VXX1931	VXX1931	No. 20
	Damper assy	• • • • •	VXA1999	VXA1999	VXA1999	No. 21
	Remote control unit (CU-CLD077)	VXX1758	• • • • •	• • • • •	• • • • •	
	Remote control unit (CU-CLD072)	• • • • •	VXX2016	VXX2016	VXX2016	
	Battery cover	VNK1293	PZN1010	PZN1010	PZN1010	

Note : The numbers in the remarks column correspond to the numbers on the exploded diagram. Refer to "EXPLODED VIEWS".

Mark	Symbol & Description	Part No.				Remarks
		CLD-1700/ HEZ	CLD-900/ HEZ	CLD-900/ HB	CLD-900S/ HEZW/SP	
	Caution label	VRW1094	VRW1094	• • • • •	VRW1094	∗ 1
	Caution label	• • • • •	• • • • •	PRW1018	• • • • •	∗ 1
NSP	Caution label HE	VRW1297	VRW1297	• • • • •	VRW1297	∗ 1
NSP	Service telephone list	• • • • •	• • • • •	• • • • •	VRR1021	No. 22
NSP	Connection diagram	• • • • •	• • • • •	• • • • •	VRR1022	No. 23
NSP	Telephone number card (For service information)	• • • • •	• • • • •	• • • • •	VRR1023	No. 24
NSP	Polyethylene bag	Z21-029	• • • • •	• • • • •	• • • • •	

∗ 1 : Refer to the SAFETY INFORMATION in the service manual ARP2543 for CLD-1700 and CLD-700.
Note : The numbers in the remarks column correspond to the numbers on the exploded diagram. Refer to "EXPLODED VIEWS".

LIST OF ASSEMBLIES (FOR CLD-900 AND CLD-900S)

MOTHER assy
├─MAIN assy
├─AUDIO assy
└─SCRB assy

FLKB assy
├─FLKY assy
└─PWSB assy

MAIN ASSY

VWX1207 and VWX1116 of CLD-700/HEZ have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		VWX1116	VWX1207	
	IC101	PD0135B	PD0135C	
	C446, C618	CQMA103J50	CFTXA103J50	
	C567	CEAS470M16	• • • • •	
	C580	• • • • •	CKSQYF103Z50	
	R852, R853	RS1/10S823J	RS1/10S563J	
	R868	RS1/10S222J	RS1/10S182J	
	R871	RS1/10S223J	RS1/10S203J	

AUDIO ASSY

VWX1208 and VWX1117 of CLD-700/HEZ have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		VWX1117	VWX1208	
	IC201	CXD2500AQ	CXD2500BQ	
	Q222, Q223	2SA1037K	• • • • •	
	L201, L202, L204, L205	LAU010K	LAU1R0J	
	C284,C285	CEAS100M50	• • • • •	
	C325, C326	CKSQYF104Z25	• • • • •	
	R320, R321	RS1/10S101J	• • • • •	
	R322, R323	RS1/10S472J	• • • • •	
	R324, R325	RS1/10S224J	• • • • •	

SYPS ASSY

VWR1177, VWR1178 and VWR1146 of CLD-700/HEZ have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		VWR1146	VWR1177	VWR1178	
	L2	• • • • •	VTL-004	VTL-004	

● PCB PARTS LIST

FLKY ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC201		PD3275A
	IC202		S-806D
	Q203		DTA144ES
	Q202		DTC114ES
	Q201,Q204		DTC124ES
	D203-D206		1SS252
	D201		1SS254
	D210		PG3361X

SWITCHES

	S201-S204,S206,S210,S214		RSG1030
	S217-S225		RSG1030
	S205,S207-S209,S211-S213		RSG1034
	S215,S216		RSG1034
	S228		VSD1008

CAPACITORS

	C204		CEAL100M16
	C201		CEAL101M6R3
	C206		CEAL2R2M50
	C207		CEAS100M16
	C205		CKPUYF103Z25
	C202,C203		CKPUYF223Z25

RESISTORS

	R230		RA5T104J
	Other Resistors		RD1/6PM□□□J

OTHERS

	X201	CERAMIC RESONATOR (8.00MHz)	EFOEC8004A4
		REMOTE CONTROL SENSOR UNIT	GP1U58X
	V201	FL TUBE	VAW1033
	J21	CORD (4P)	VDA1440
		SPACER	VEC1599
		FL HOLDER	VNF1078

PWSB ASSY

SEMICONDUCTOR

	D211		SLH34VCF04

SWITCH

	S226		RSG1030

RESISTORS

	All Resistors		RD1/6PM□□□J

SCRB ASSY

SEMICONDUCTOR

Mark	No.	Description	Part No.
	Q701		2SC1740S

CAPACITORS

	C703,C704		CCSQCH271J50
	C701,C702		CEAS470M16
	C706		CEAS471M10
	C705		CKSQYF104Z25

RESISTORS

	R705		DCN1003
	R709		RD1/6PM103J
	R704		RD1/6PM391J
	R706		RD1/6PM680J
	Other Resistors		RS1/10S□□□J

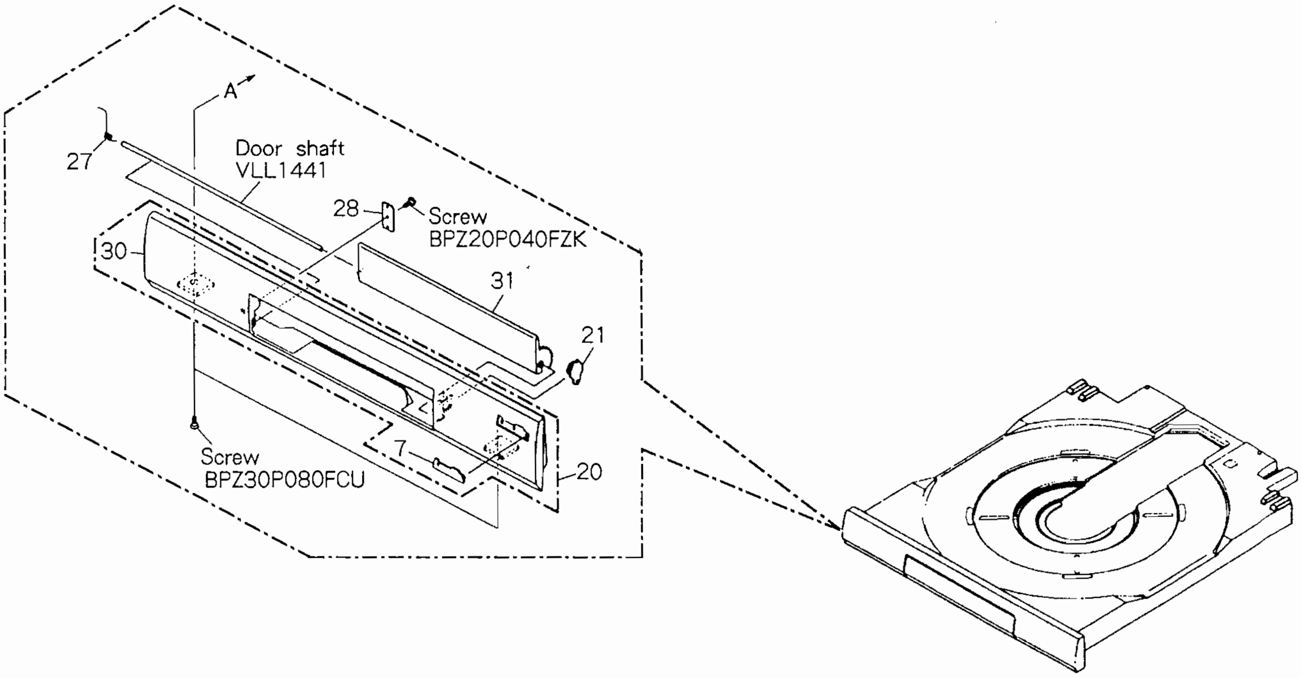
OTHERS

		7P CABLE HOLDER	51048-0700
	JA9	RGB CONNECTOR	VKB1037

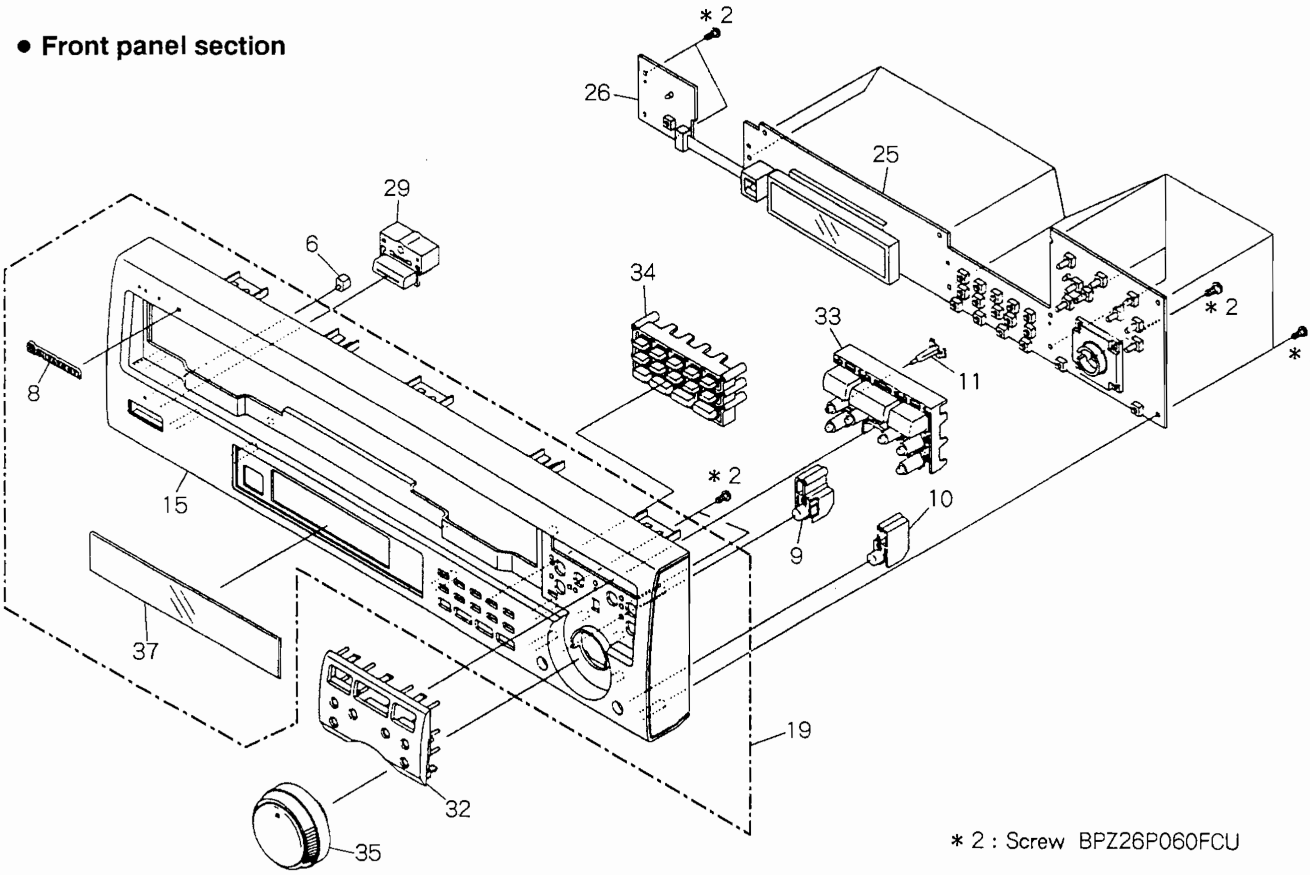
• EXPLODED VIEWS

Note :
The numbers on the exploded diagram correspond to the numbers in the remarks column of the comparative table. Refer to "CONTRAST OF MISCELLANEOUS PARTS".

• Tray panel section


A
27
Door shaft
VLL1441
28
Screw
BPZ20P040FZK
30
31
21
Screw
BPZ30P080FCU
7
20

• Front panel section

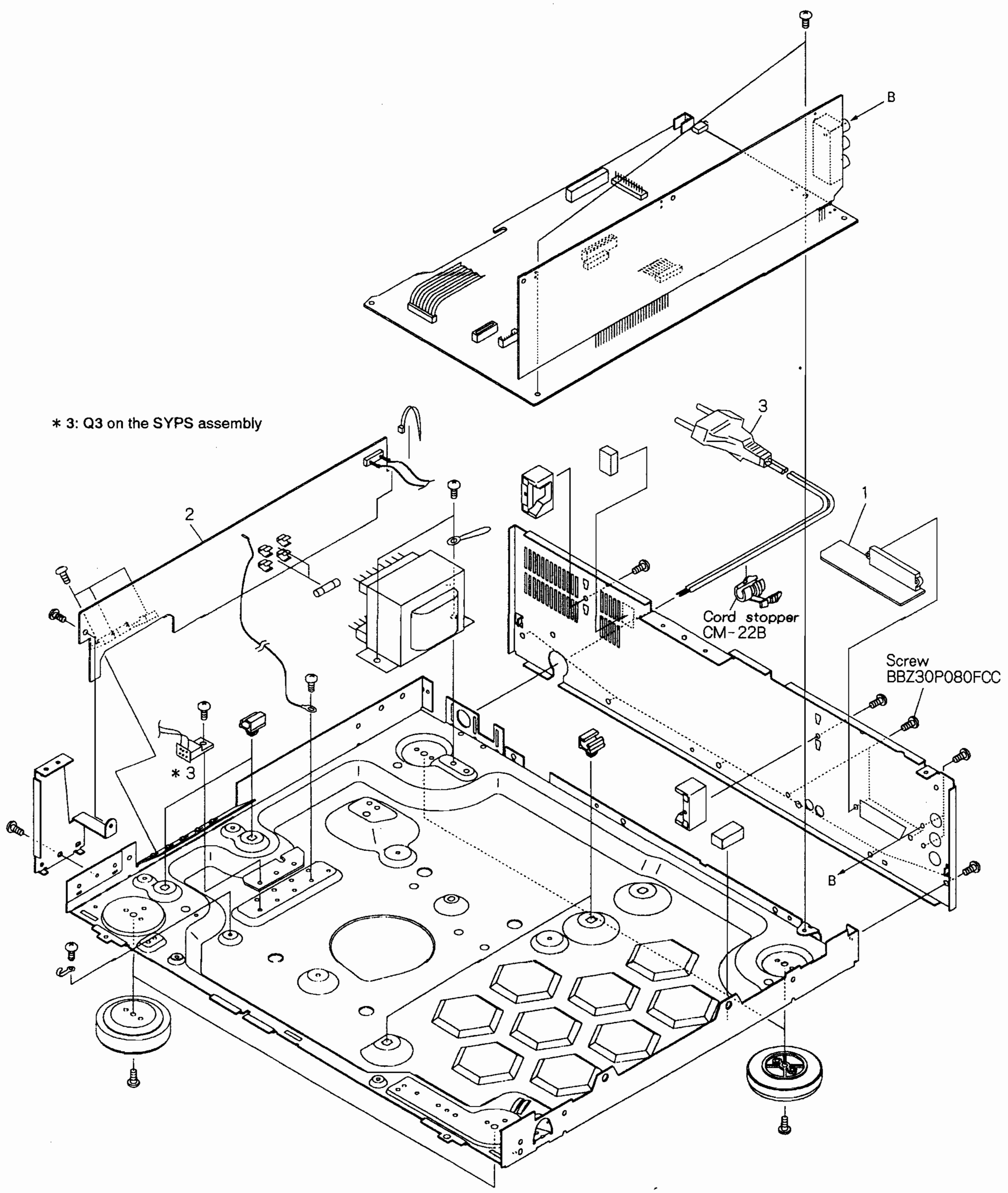

∗ 2
26
25
29
6
34
33
∗ 2
∗ 2
11
8
15
∗ 2
10
9
37
19
32
35

∗ 2 : Screw BPZ26P060FCU

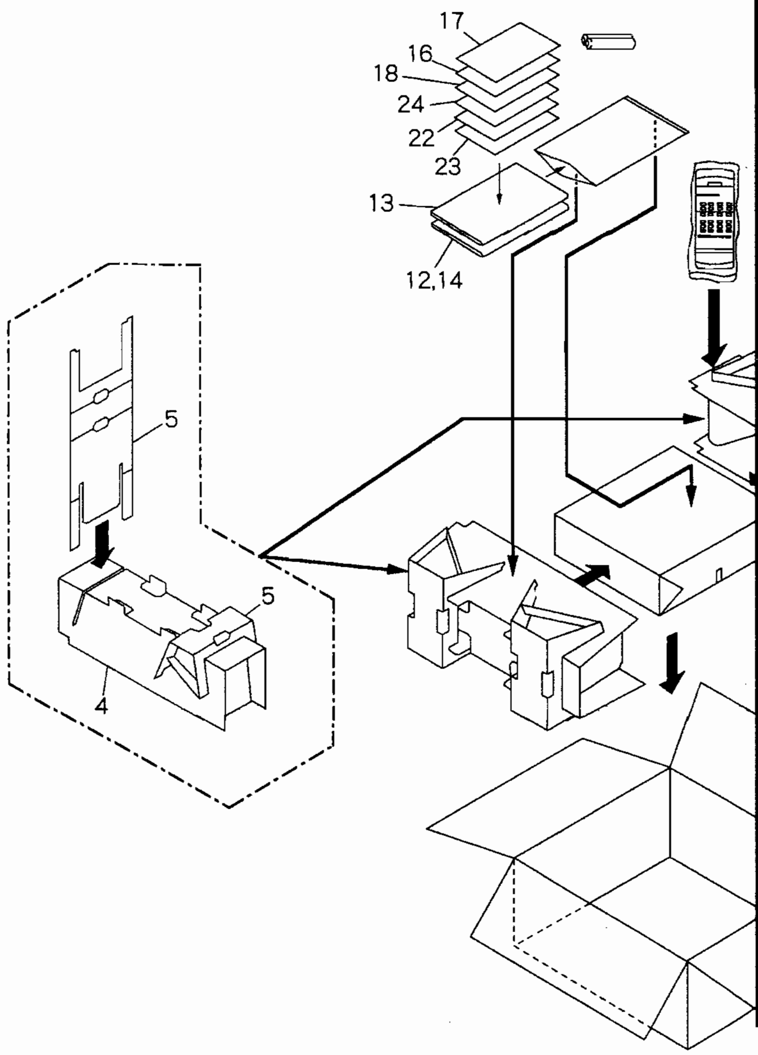
C

• Base section

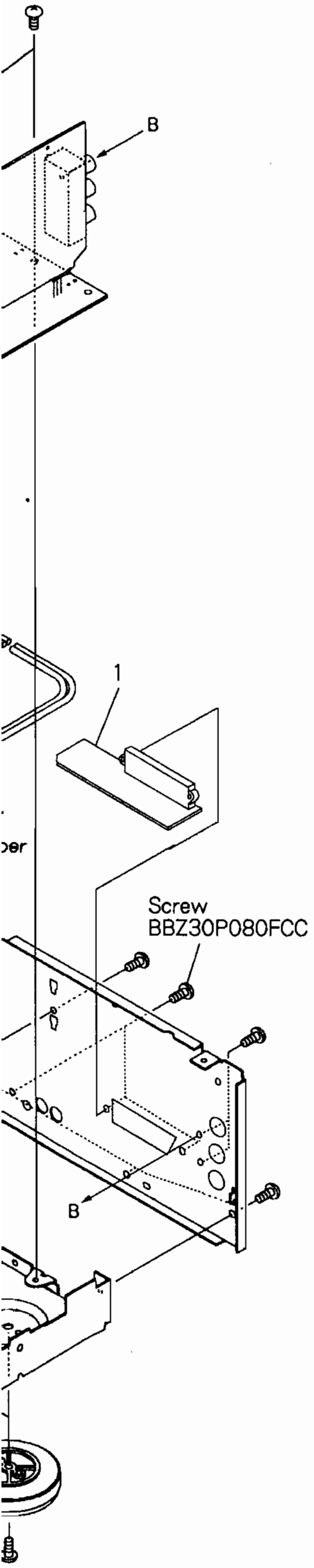
* 3: Q3 on the SYPS assembly


B
3
2
1
Cord stopper
CM-22B
Screw
BBZ30P080FCC
* 3
B

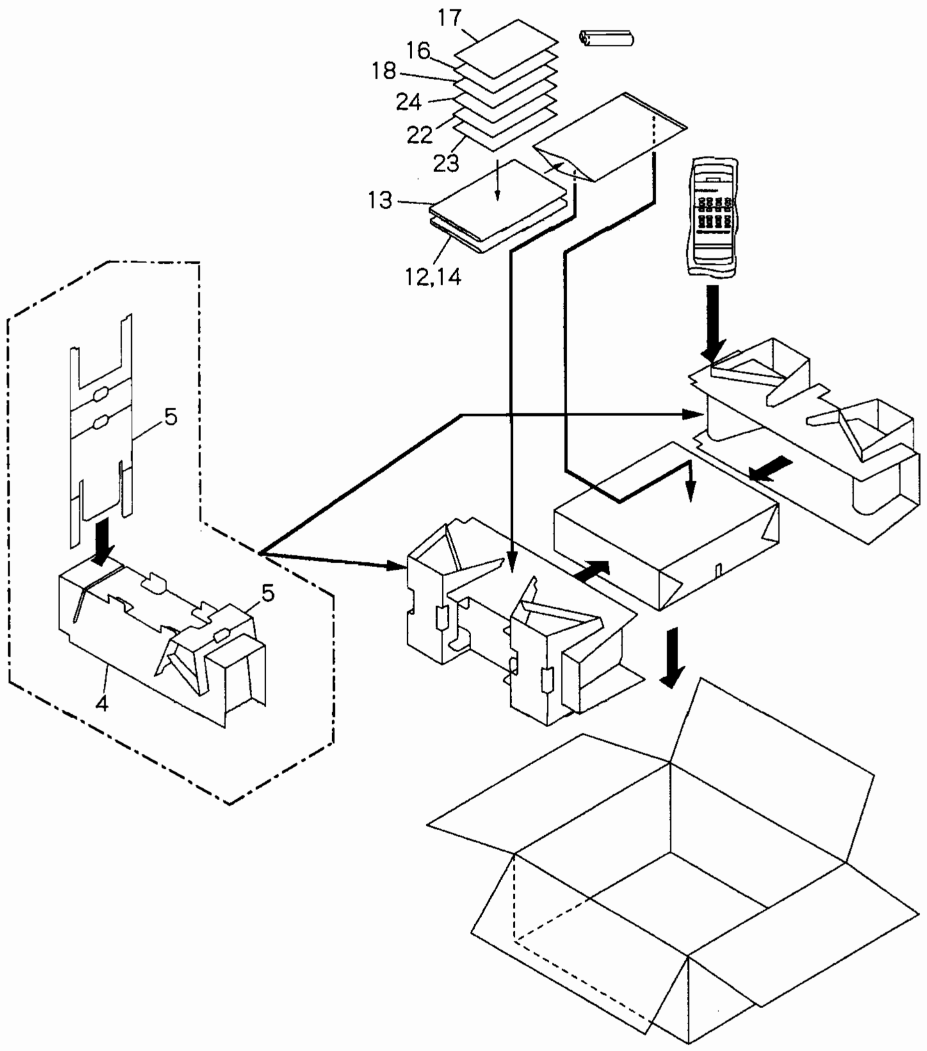
• Packing


17
16
18
24
22
23
13
12,14
5
5
4

D
E
F



• Packing



• SCHEMATIC DIAGRAM AND PCB PATTERNS

NOTE FOR SCHEMATIC DIAGRAMS (Type 4A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**

2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**

3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance:(F):±1%, (G):±2%, (K):±10%, (M):±20% or ±5% unless otherwise noted.

4. **CAPACITORS:**
   Unit : p:pF or µF unless otherwise noted.
   Ratings : capacitor (µF) / voltage (V) unless otherwise noted.
   Rated voltage : 50V except for electrolytic capacitors.

5. **COILS:**
   Unit : m:mH or µH unless otherwise noted.

6. **VOLTAGE AND CURRENT:**
   ▭ or ←V :
   DC voltage (V) in PLAY mode unless otherwise noted.
   ⇦mA or ←mA :
   DC current in PLAY mode unless otherwise noted.
   Value in ( ) is DC current in STOP mode.

7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◀ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. **SCH – □ ON THE SCHEMATIC DIAGRAM:**
   - SCH– □ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

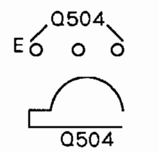
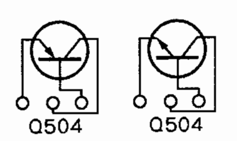
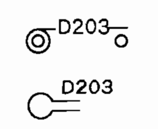
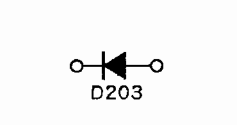
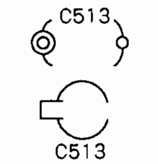
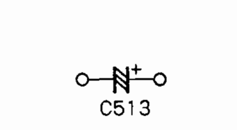
9. **SWITCHES** (Underline indicates switch position):

PWSB ASSY
S226 : POWER (STANDBY/ON)

FLKY ASSY
S201 : 1
S202 : 7
S203 : ▷▷|
S204 : |◁◁
S205 : ⏏
S206 : 8
S207 : ▷/II
S208 : □
S209 : DIRECT CD
S210 : 9
S211 : CHP/TIME
S212 : HILITE/INTRO
S213 : D-LEVEL CONTROL
S214 : 0
S215 : RANDOM PLAY
S216 : LANGUAGE
S217 : 5
S218 : 3
S219 : CLEAR
S220 : PGM
S221 : 4
S222 : 2
S223 : +10
S224 : EDIT
S225 : 6
S228 : SCAN

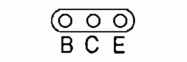
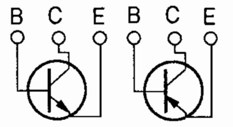
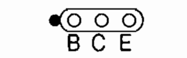
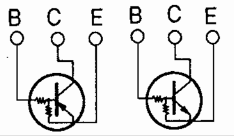
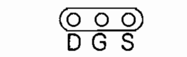
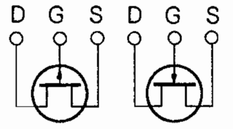
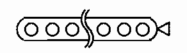
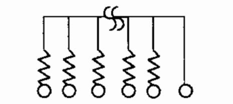
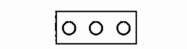
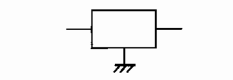
NOTE FOR PCB DIAGRAMS:

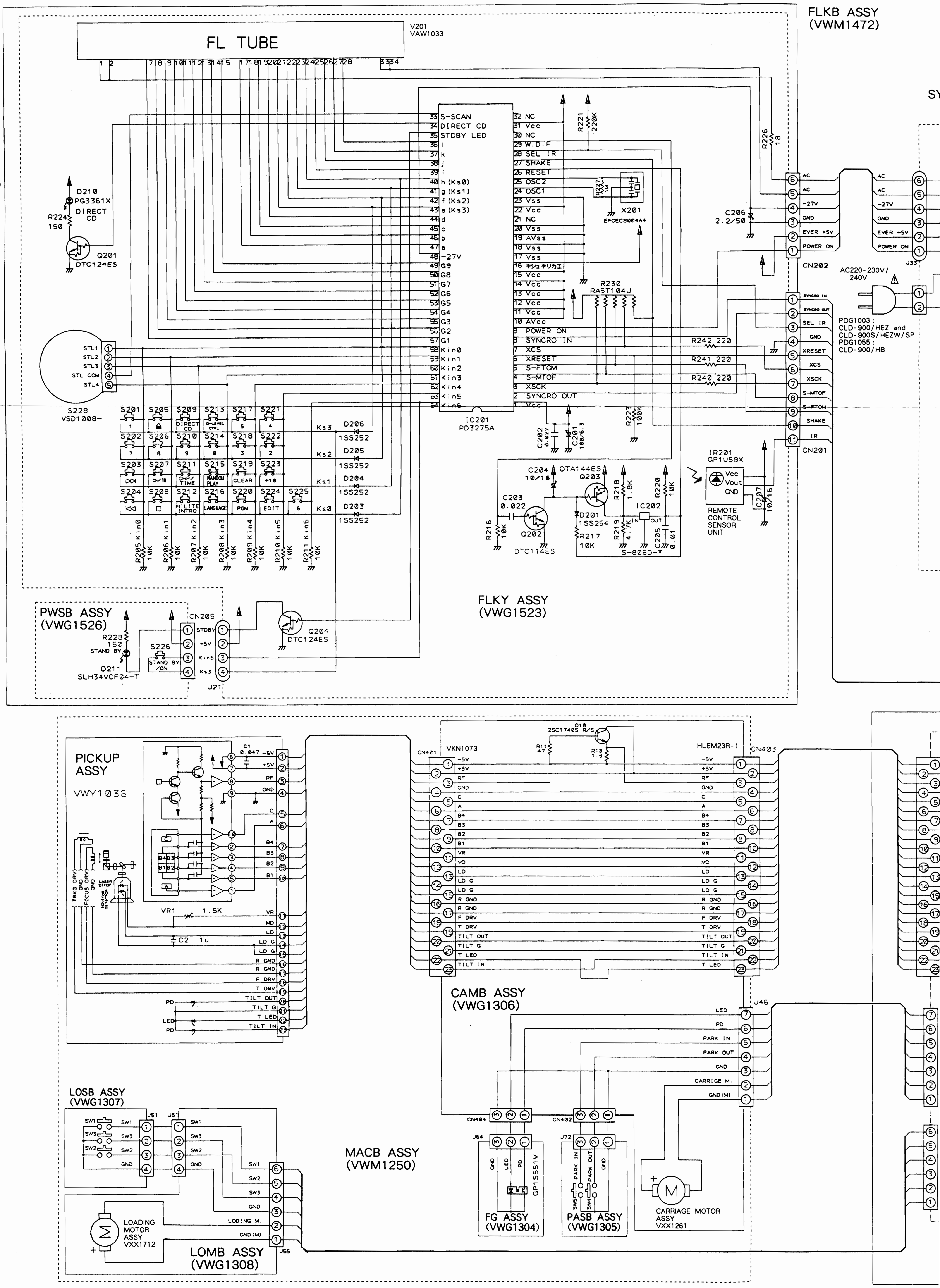
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Diode
		Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between main parts of PCB and schematic diagrams is shown below.

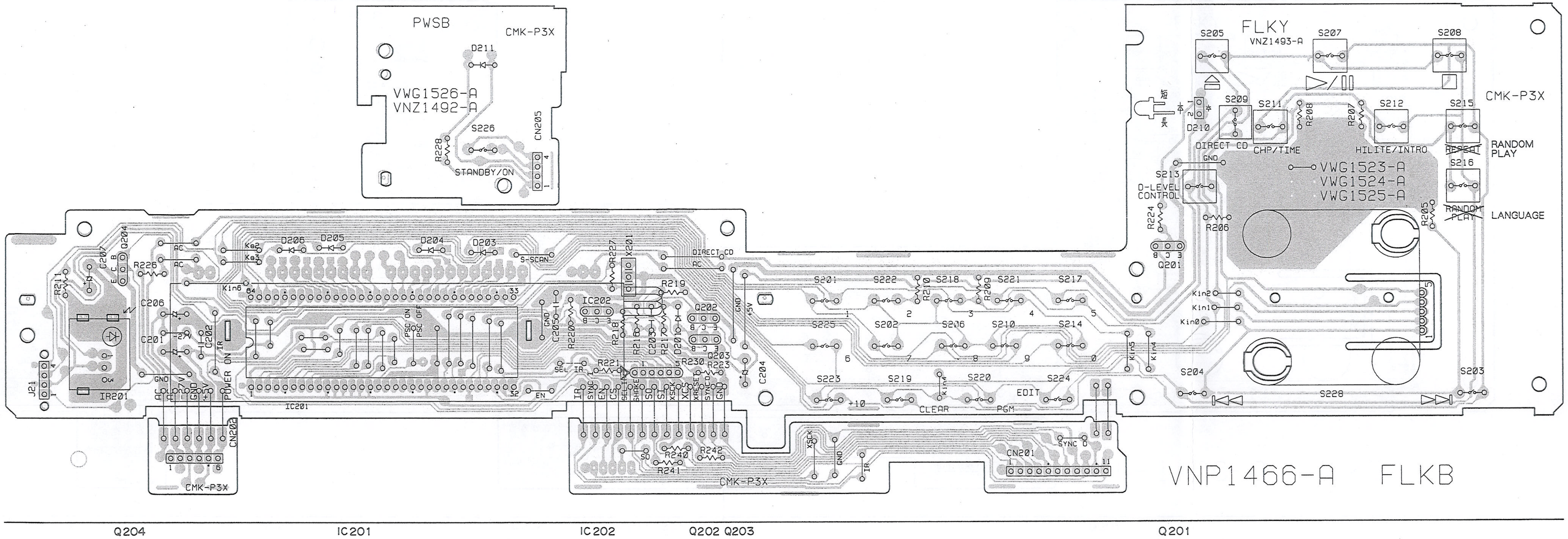
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator



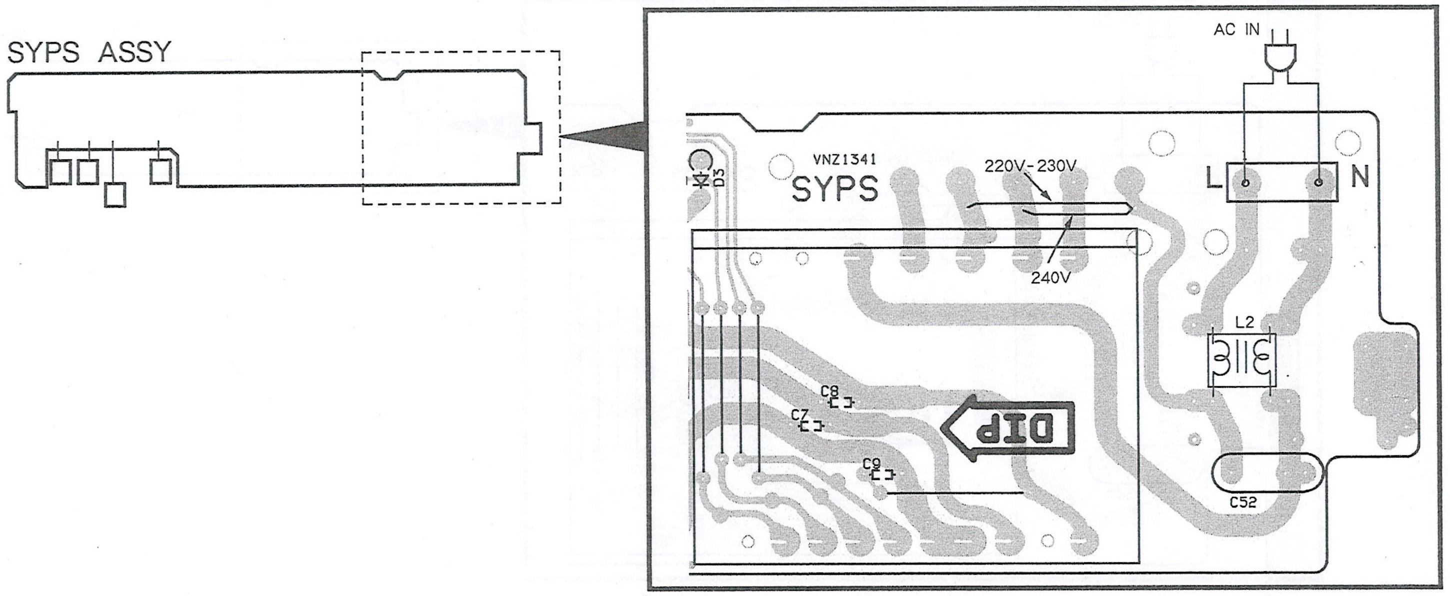
FL TUBE
V201
VAW1033
FLKB ASSY
(VWM1472)
IC201
PD3275A
S-SCAN
DIRECT CD
STDBY LED
h (Ks0)
g (Ks1)
f (Ks2)
e (Ks3)
-27V
NC
Vcc
W.D.F
SEL IR
SHAKE
RESET
OSC2
OSC1
Vss
AVss
AVcc
POWER ON
SYNCRO IN
XCS
XRESET
S-FTOM
S-MTOF
XSCK
SYNCRO OUT
Kin0
Kin1
Kin2
Kin3
Kin4
Kin5
Kin6
D210
PG3361X
DIRECT CD
R224
150
Q201
DTC124ES
R221
220K
R226
18
R227
1M
X201
EF0EC8004A4
C206
2.2/50
CN202
AC
-27V
GND
EVER +5V
POWER ON
J33
AC220-230V/
240V
R230
RAS T104J
SYNCRO IN
SYNCRO OUT
SEL IR
GND
XRESET
XCS
XSCK
S-MTOF
S-FTOM
SHAKE
IR
CN201
R242 220
R241 220
R240 220
R223
100K
PDG1003 :
CLD-900/HEZ and
CLD-900S/HEZW/SP
PDG1055 :
CLD-900/HB
S228
VSD1008-
STL1
STL2
STL3
STL COM
STL4
S201
S205
S209
S213
S217
S221
S202
S206
S210
S214
S218
S222
S203
S207
S211
S215
S219
S223
S204
S208
S212
S216
S220
S224
S225
DIRECT CD
D-LEVEL CTRL
CHP/TIME
RANDOM PLAY
CLEAR
+10
HILITE INTRO
LANGUAGE
PGM
EDIT
Ks3
Ks2
Ks1
Ks0
D206
D205
D204
D203
1SS252
R205
R206
R207
R208
R209
R210
R211
10K
C202
0.022
C201
100/6.3
IR201
GP1U58X
Vcc
Vout
GND
REMOTE CONTROL SENSOR UNIT
C207
10/16
C204
10/16
DTA144ES
Q203
C203
0.022
R216
10K
Q202
DTC114ES
D201
1SS254
R217
10K
R218
1.8K
R219
4.7K
R220
10K
IC202
S-80760-T
C205
0.01
FLKY ASSY
(VWG1523)
PWSB ASSY
(VWG1526)
R228
152
STAND BY
D211
SLH34VCF04-T
S226
STAND BY/ON
CN205
STDBY
+5V
Kin6
Ks3
J21
Q204
DTC124ES
PICKUP ASSY
VWY1036
C1
0.047
-5V
+5V
RF
GND
C
A
B4
B3
B2
B1
VR
MD
LD
LD G
R GND
F DRV
T DRV
TILT OUT
TILT G
T LED
TILT IN
VR1 1.5K
C2 1u
TRKG DRV
FOCUS DRV
LASER DIODE
MONITOR DIODE
PD
LED
Q10
2SC1740S R/S
R11
47
R12
1.8
VKN1073
HLEM23R-1
CN421
CN403
VO
CAMB ASSY
(VWG1306)
J46
PARK IN
PARK OUT
CARRIGE M.
GND (M)
CN404
CN402
J64
J72
GP1S551V
FG ASSY
(VWG1304)
SW5
SW4
PASB ASSY
(VWG1305)
M
CARRIAGE MOTOR ASSY
VXX1261
MACB ASSY
(VWM1250)
LOSB ASSY
(VWG1307)
J51
SW1
SW3
SW2
LODING M.
J55
LOADING MOTOR ASSY
VXX1712
LOMB ASSY
(VWG1308)
A
B
C
D
E
F
1
2
3
4
5

PWSB ASSY

FLKY ASSY

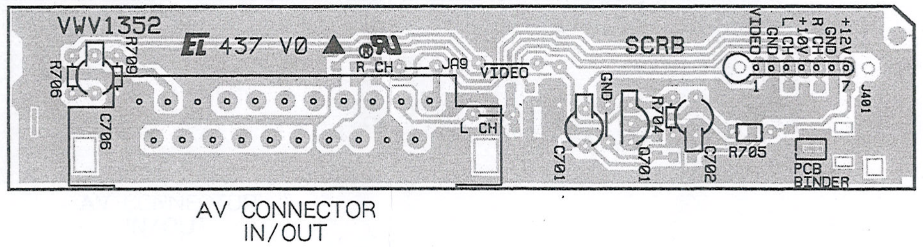

PWSB
CMK-P3X
D211
VWG1526-A
VNZ1492-A
S226
CN205
R228
STANDBY/ON
FLKY
VNZ1493-A
S205
S207
S208
S209
S211
S212
S215
S213
S216
D210
R208
R207
R205
R224
R206
Q201
DIRECT CD
CHP/TIME
HILITE/INTRO
REPEAT
RANDOM PLAY
LANGUAGE
D-LEVEL CONTROL
GND
VWG1523-A
VWG1524-A
VWG1525-A
CMK-P3X
Q204
C207
R211
R226
C206
C201
C202
IR201
J21
CN202
D206
D205
D204
D203
S-SCAN
Kin6
IC201
IC202
C205
R220
R218
R216
R217
C203
D201
R219
Q202
Q203
R221
R223
R230
C204
X201
R227
DIRECT CD
POWER ON
PSC ON
PSC OFF
S201
S222
S218
S221
S217
S225
S202
S206
S210
S214
S223
S219
S220
S224
S204
S228
S203
R210
R209
+10
CLEAR
PGM
EDIT
Kin2
Kin1
Kin0
R240
R241
R242
CN201
SYNC
XSCK
GND
IR
CMK-P3X
VNP1466-A FLKB
Q204
IC201
IC202
Q202 Q203
Q201

SYPS ASSY


AC IN
VNZ1341
SYPS
D3
220V-230V
240V
L
N
L2
C8
C7
C9
DIP
C52

• This diagram is viewed from the mounted parts side.

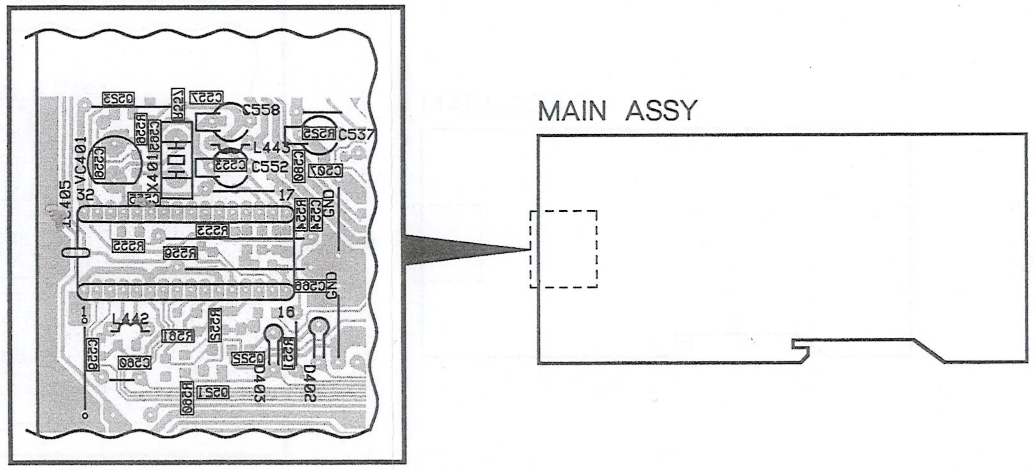
SCRB ASSY


VWV1352
437 V0
SCRB
R706
R709
R CH
JA9
VIDEO
L CH
C706
C701
R704
D701
C702
R705
PCB BINDER
J401
VIDEO
GND
L CH
GND
R CH
+10V
GND
+12V

AV CONNECTOR IN/OUT

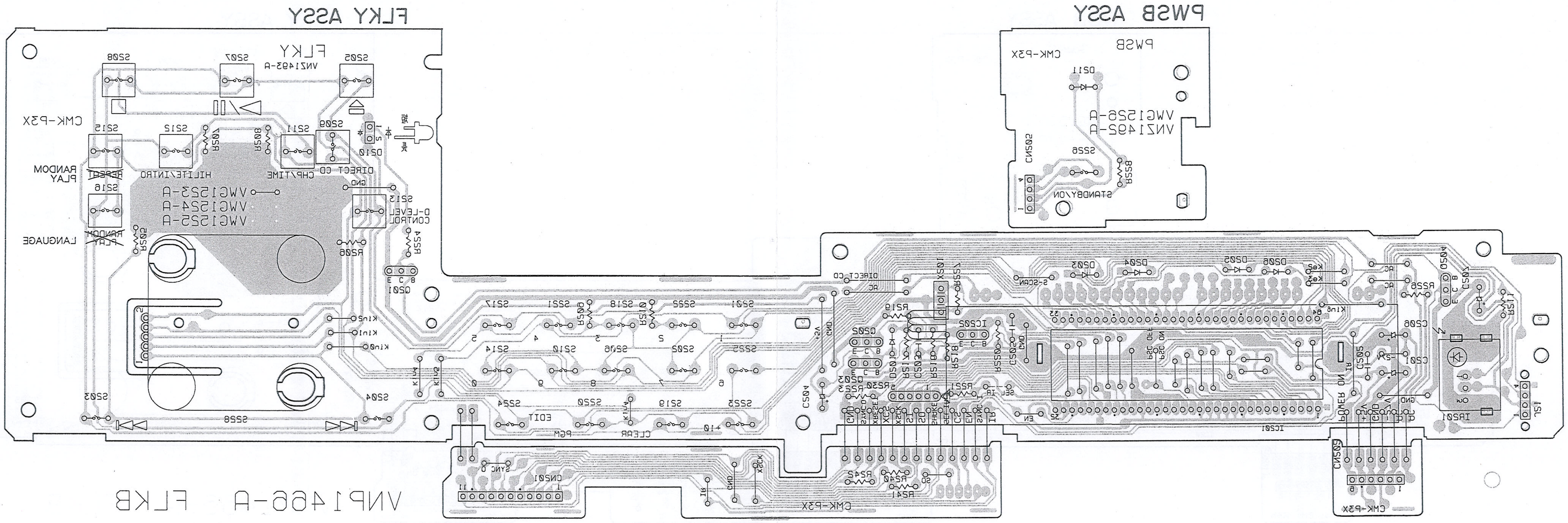
• PCB diagram for C580

MAIN ASSY

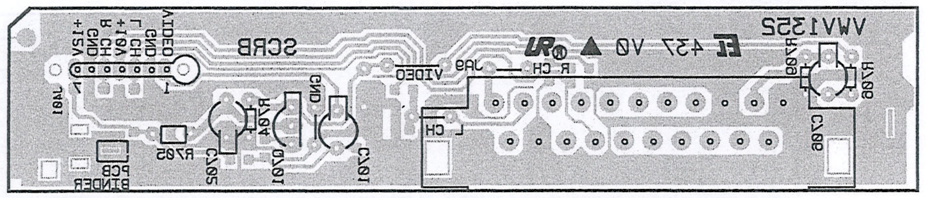

C558
C537
L444
C552
VC401
L405
17
16
L442
D403
D402
GND

FLKY ASSY

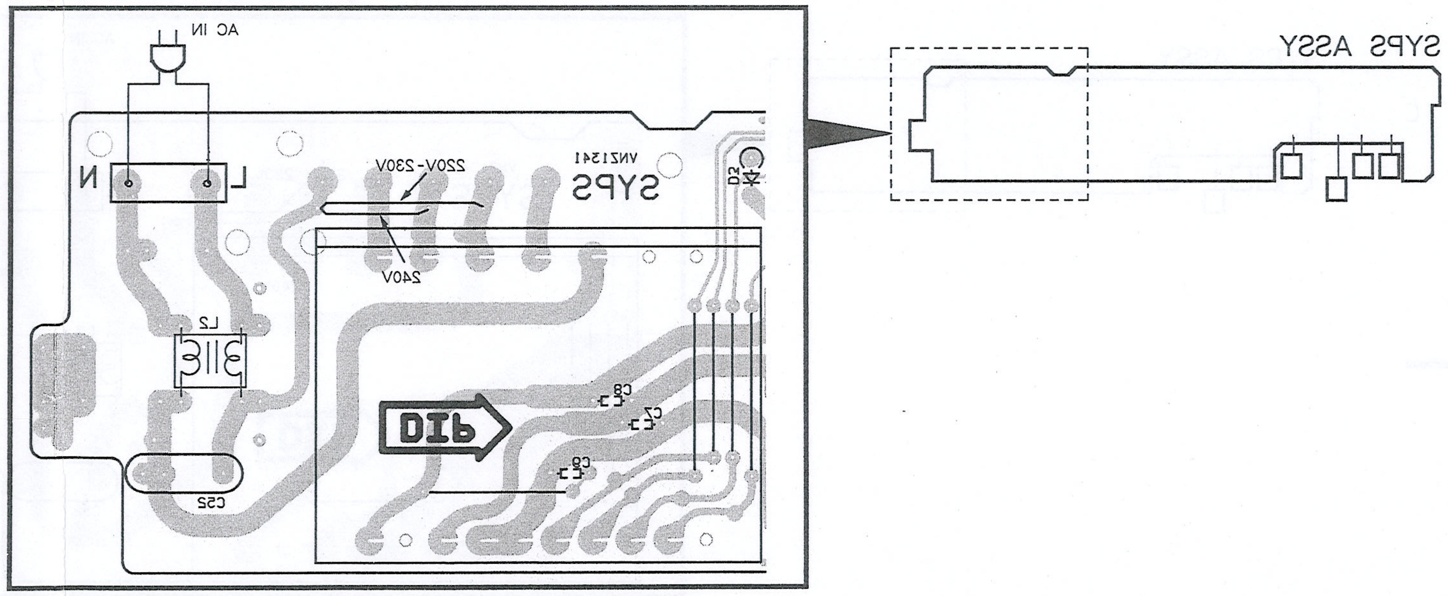
PWSB ASSY


FLKY
VNZ1493-A
CMK-P3X
S205
S207
S208
S209
S211
S212
S215
S216
S213
RANDOM PLAY
REPEAT
LANGUAGE
HILITE/INTRO
CHP/TIME
DIRECT CD
D-LEVEL CONTROL
VWG1523-A
VWG1524-A
VWG1525-A
PWSB
VWG1526-A
VNZ1492-A
S226
STANDBY/ON
CN502
IC201
IC202
CN201
CN509
CLEAR
EDIT
PGM
VNP1466-A FLKB
Q201
Q202 Q203
IC202
IC201
Q204

SCRB ASSY

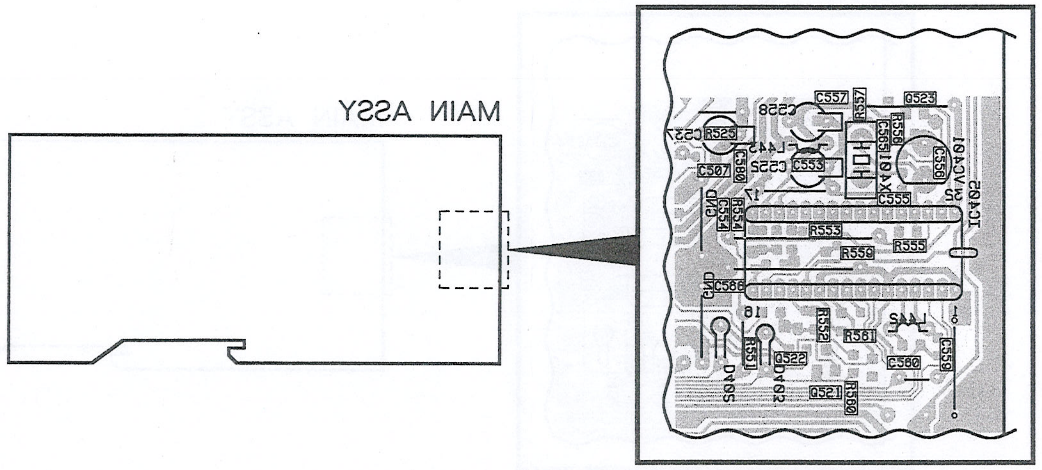

SCRB
VWV1352
AV CONNECTOR IN/OUT

SYPS ASSY


AC IN
N
L
VNZ1341
SYPS
220V-230V
240V
L2
C52
D2

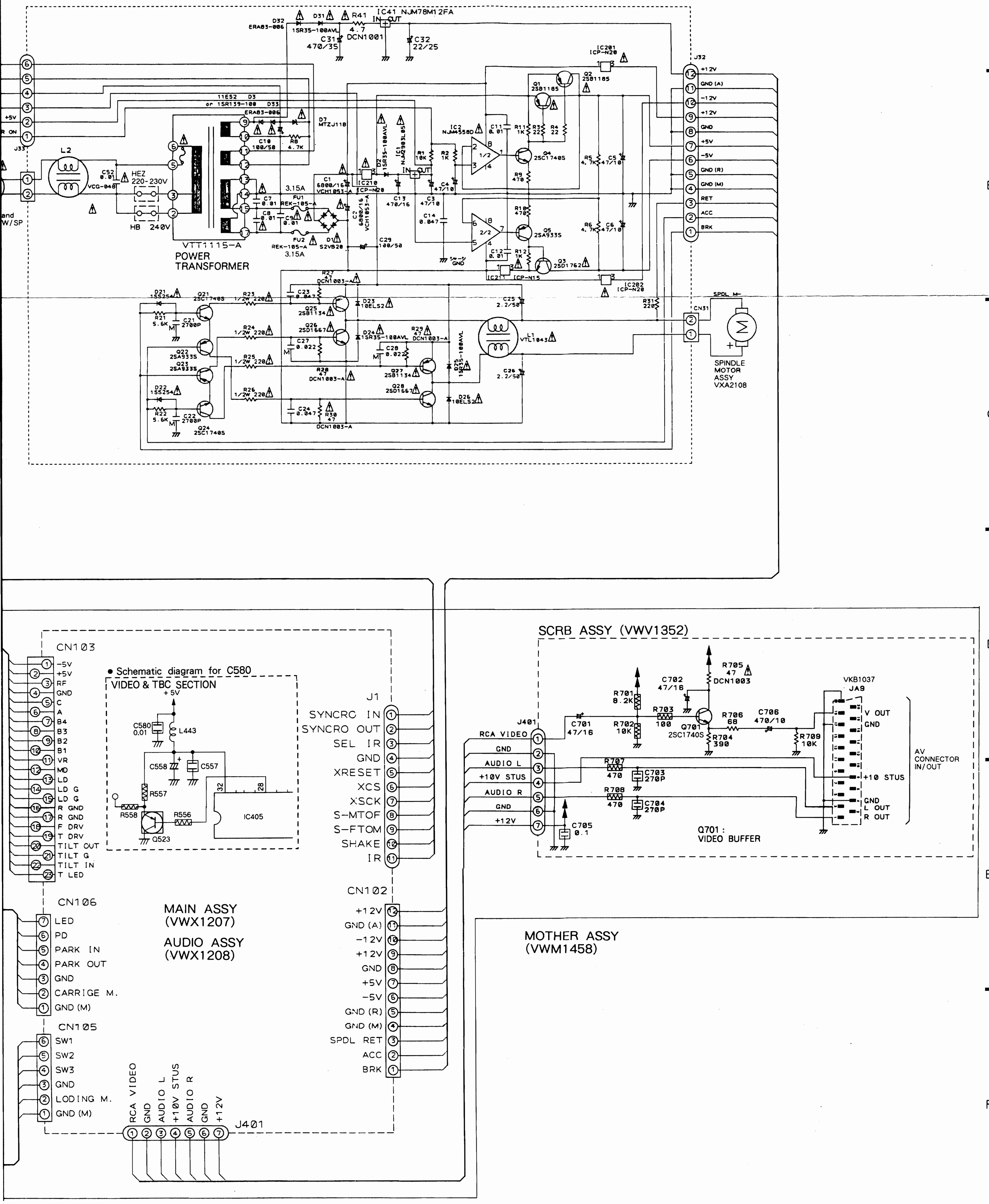
- PCB diagram for C580

MAIN ASSY



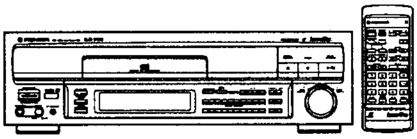
- This diagram is viewed from the foil side.

SYPS ASSY (VWR1177 : CLD-900/HEZ and CLD-900S/HEZW/SP)
(VWR1178 : CLD-900/HB)


IC41 NJM78M12FA
D32 ERA83-006
D31 1SR35-100AVL
R41 4.7 DCN1001
C31 470/35
C32 22/25
IC201 ICP-N20
J32
+12V
GND (A)
-12V
+12V
GND
+5V
-5V
GND (R)
GND (M)
RET
ACC
BRK
Q1 2SB1185
Q2 2SB1185
11ES2 D3 or 1SR139-100 D33
ERA83-006
D7 MTZJ11B
C10 100/50
R8 4.7K
IC2 NJM4558D
C11 0.01
R11 1K
R3 22
R4 22
Q4 2SC1740S
R5 4.7K
C5 47/10
R1 10K
R2 1K
R9 470
IC1 NJM2903L05
D2 1SR35-100AVL
C1 6800/16 VCH1053-A
IC210 ICP-N20
C2 6800/16 VCH1053-A
C13 470/16
C3 47/10
C4 47/10
C14 0.047
R10 470
Q5 2SA933S
R6 4.7K
C6 47/10
C12 0.01
R12 1K
Q3 2SD1762
IC211 ICP-N15
IC202 ICP-N20
J33
+5V
R ON
L2 VCG-040
C52 0.01
HEZ 220-230V
HB 240V
C7 0.01
C8 0.01
C9 0.01
FU1 REK-105-A 3.15A
FU2 REK-105-A 3.15A
D1 S2VB20
C29 100/50
VTT1115-A
POWER TRANSFORMER
GND
D21 1SS254
Q21 2SC1740S
R23 1/2W 220
R21 5.6K
C21 2700P
R27 47 DCN1003-A
C23 0.047
Q25 2SB1134
D23 10ELS2
C25 2.2/50
R31 220
CN31
SPDL M
SPINDLE MOTOR ASSY VXA2108
R24 1/2W 220
Q26 2SD1667
C27 0.022
D24 1SR35-100AVL
R29 47 DCN1003-A
L1 VTL1043
Q22 2SA933S
Q23 2SA933S
R25 1/2W 220
C28 0.022
Q27 2SB1134
D25 1SR35-100AVL
C26 2.2/50
R28 47 DCN1003-A
Q28 2SD1667
D26 10ELS2
D22 1SS254
R22 5.6K
C22 2700P
R26 1/2W 220
C24 0.047
R30 47 DCN1003-A
Q24 2SC1740S
SCRB ASSY (VWV1352)
R705 47 DCN1003
C702 47/16
R701 8.2K
R703 100
R702 10K
Q701 2SC1740S
R704 390
C701 47/16
R706 68
C706 470/10
R709 10K
VKB1037 JA9
V OUT
GND
+10 STUS
GND
L OUT
R OUT
AV CONNECTOR IN/OUT
J401
RCA VIDEO
GND
AUDIO L
+10V STUS
AUDIO R
GND
+12V
R707 470
C703 270P
R708 470
C704 270P
C705 0.1
Q701 : VIDEO BUFFER
CN103
-5V
+5V
RF
GND
C
A
B4
B3
B2
B1
VR
MD
LD
LD G
LD G
R GND
R GND
F DRV
T DRV
TILT OUT
TILT G
TILT IN
T LED
• Schematic diagram for C580
VIDEO & TBC SECTION
+5V
C580 0.01
L443
C558
C557
R557
R558
R556
Q523
IC405
J1
SYNCRC IN
SYNCRO OUT
SEL IR
GND
XRESET
XCS
XSCK
S-MTOF
S-FTOM
SHAKE
IR
CN106
LED
PD
PARK IN
PARK OUT
GND
CARRIGE M.
GND (M)
MAIN ASSY (VWX1207)
AUDIO ASSY (VWX1208)
CN102
+12V
GND (A)
-12V
+12V
GND
+5V
-5V
GND (R)
GND (M)
SPDL RET
ACC
BRK
CN105
SW1
SW2
SW3
GND
LODING M.
GND (M)
RCA VIDEO
GND
AUDIO L
+10V STUS
AUDIO R
GND
+12V
J401
MOTHER ASSY (VWM1458)
A
B
C
D
E
F

PIONEER
The Art of Entertainment

Service Manual



ORDER NO.
ARP2543

CD CDV LD PLAYER

CLD-1700
CLD-700

CLD-1700 AND CLD-700 HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	CLD-1700	CLD-700		
HEZ	○	○	AC220-230V, 240V(switchable) *	
HB	–	○	AC220-230V, 240V(switchable) *	

*Change the connection of the power transformer's primary wiring.

- **This manual is applicable to the following : CLD-1700/HEZ; CLD-700/HEZ and HB.**
- **For CLD-700/HEZ and HB, refer to page 82.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

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   REGLAGES ··· 59
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10. SPECIFICATIONS ··· 90

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

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ISO JUNE 1992 Printed in Japan

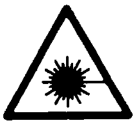
1. SAFETY INFORMATION

(FOR EUROPEAN MODEL ONLY)

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

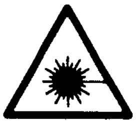


LASER
Kuva 1
Lasersateilyn varoitusmerkki

WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm



LASER
Picture 1
Warning sign for laser radiation

LABEL CHECK

HB model

CAUTION
INVISIBLE LASER
RADIATION WHEN OPEN,
AVOID EXPOSURE
TO BEAM
PRW1018

HEZ model

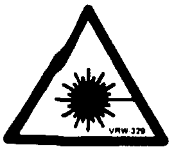
VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233

HEZ and HB model

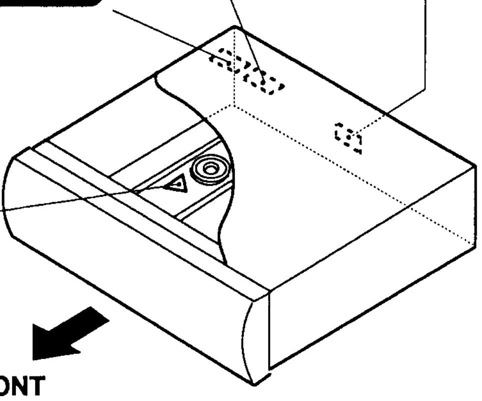
CLASS 1
LASER PRODUCT
VRW-328

HEZ model

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094



HEZ and HB models



Additional Laser Caution

1. The ON/OFF statuses of the slider - position detection switches (PARK INNER, PARK OUTER on the PKSB assembly), loading - status detection switches (SW 1, 2 and 3 on PKSB assembly) are detected by the microprocessor (IC101 in the MAIN assembly). To permit the laser diode to oscillate, it is required to set the slider - position detection switch for the LD ACTIVE status (PARK INNER: OFF, PARK OUTER: OFF), and to set the loading - status detection switch for clamped state (SW1: OFF, SW2: ON, SW3: ON). As long as these requirements are not satisfied, the laser diode will not oscillate. When the requirements are met in any way, the laser diode can oscillate. The laser diode oscillation will continue if pin 29 of IC801 is shorted to GND or the emitter and collector of Q809 are shorted each other (fault condition) in MAIN assembly.
   In test mode (see page 51), the laser diode oscillates when microprocessor detects a PLAY signal or when the PLAY key is pressed (S223: ON in the FLKY assembly), with the above requirements satisfied.
2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

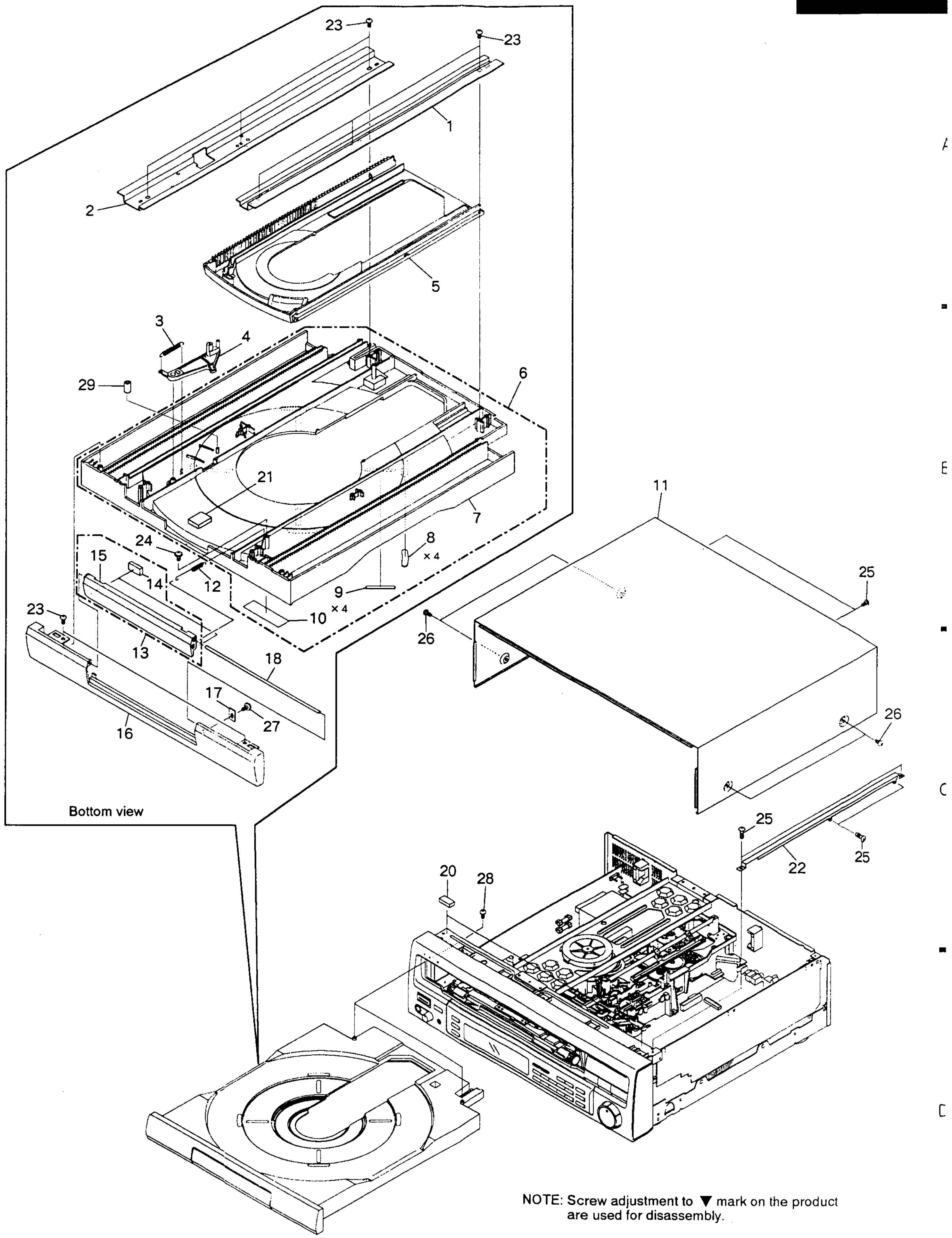
2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

(1) EXTERIOR SECTION

Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Guide plate (L)	VNE1805		16	Tray panel	VNK2032
	2	Guide plate (R)	VNE1806		17	Door holder	VNE1812
	3	Lock plate spring	VBH1188		18	Door shaft	VLL1441
	4	Lock plate	VNL1513		19	• • • • •	
	5	CD tray	VNK1992	NSP	20	Spacer	VEC1585
	6	Tray assembly - S	VXX1729	NSP	21	Damp cushion	VEC1110
NSP	7	LD tray	VNK1991	NSP	22	PCB holder	VNE1830
	8	Disc pad	VEC1191		23	Screw	BPZ30P060FCU
	9	Disc pad (C)	VEC1380		24	Screw	IPZ26P060FMC
NSP	10	Label	VRW1289		25	Screw	BBZ30P080FCC
	11	Bonnet S	VXX1726		26	Screw	BCZ40P060FZK
	12	Door spring	VBH1202		27	Screw	IPZ20P050FMC
	13	CD door assembly - S	VXX1728		28	Screw	VBA1032
	14	Cushion	VEC1578		29	Tray rubber	VEB1091
NSP	15	CD door	VNK2033				

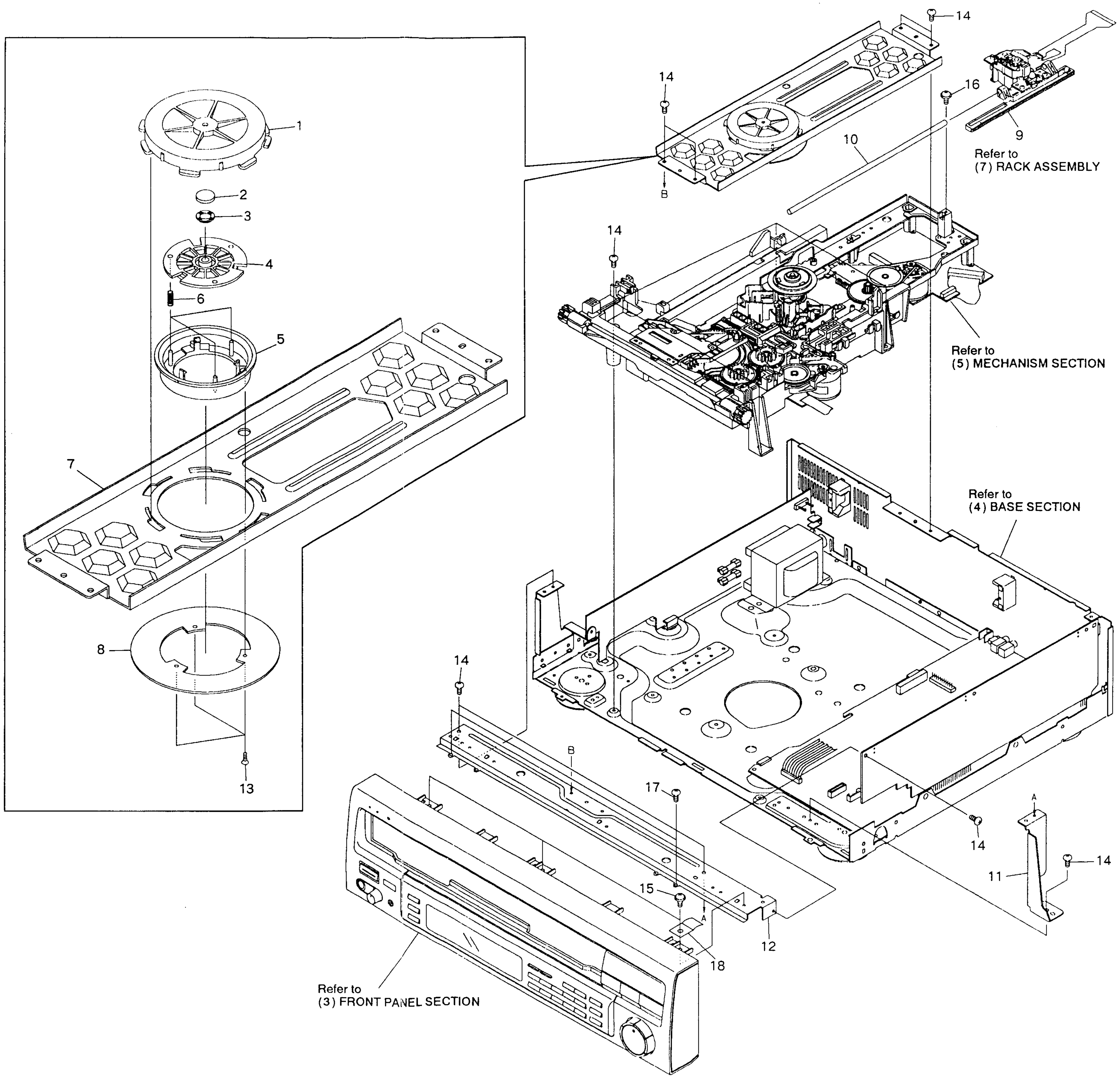


NOTE: Screw adjustment to ▼ mark on the product are used for disassembly.

(2) TOP VIEW SECTION

Parts List

Mark	No.	Description	Part No.
	1	Clamper holder	VNL1514
	2	Rubber sheet	VEB1114
	3	Thrust holder	VNL1289
	4	Clamper head	VNL1516
	5	Clamper	VNL1515
	6	Clamper spring	VBH1192
	7	Clamper arm	VNE1804
	8	Stabilizer	VNE1807
	9	Rack assembly	VWT1080
	10	Carriage shaft	VLL1434
NSP	11	Side stay (R)	VNE1810
NSP	12	Front angle	VNE1808
	13	Screw	CPZ20P050FMC
	14	Screw	BBZ30P080FCC
	15	Screw	IBZ30P060FCC
	16	Screw	IPZ30P060FMC
	17	Screw	PCZ30P060FMC
	18	Earth plate	VNE1518



Refer to
(7) RACK ASSEMBLY

Refer to
(5) MECHANISM SECTION

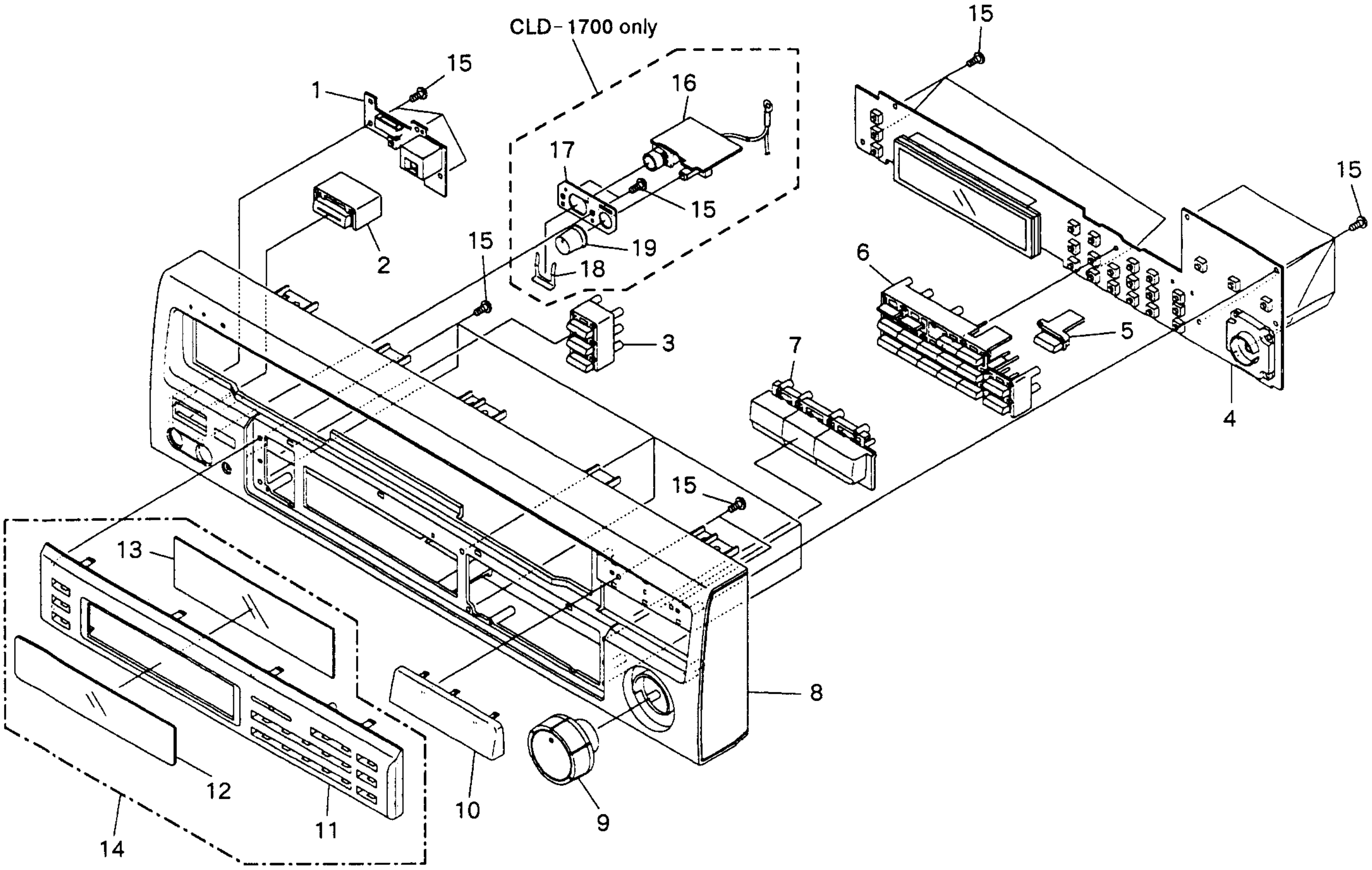
Refer to
(4) BASE SECTION

Refer to
(3) FRONT PANEL SECTION

(3) FRONT PANEL SECTION

Parts List

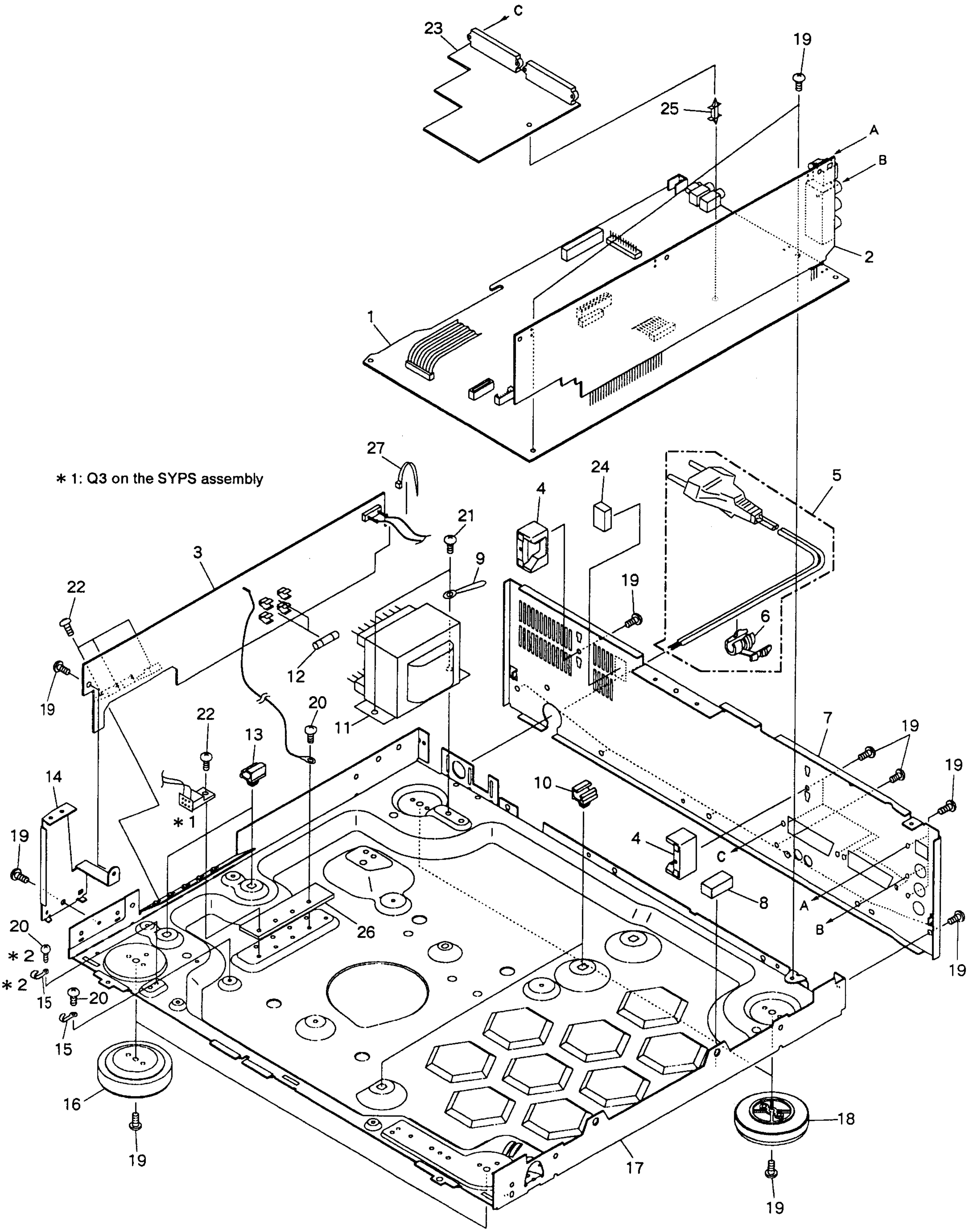
Mark	No.	Description	Part No.
NSP	1	PSWB assembly	VWG1315
	2	PW button	VNK2002
	3	Mode key	VNK2037
NSP	4	FLKY assembly	VWG1336
	5	CD button	VNK2038
	6	Ten key	VNK2036
	7	Main key	VNK2035
	8	Front panel assembly	VXA1867
	9	Shuttule knob	VNK2039
	10	Sub panel	VNK2034
NSP	11	Center panel	VNK2085
	12	FL lens	VEC1568
	13	FL filter	VNK1694
	14	Center panel assembly-S	VXX1757
	15	Screw	BPZ26P060FCU
NSP	16	HEPB assembly	VWV1254
	17	Jack holder	VNE1811
	18	Snap plate	VNE1102
	19	Volume knob	VNK2003



(4) BASE SECTION

Parts List

Mark	No.	Description	Part No.
NSP	1	MAIN assembly	VWX1123
NSP	2	AUDIO assembly	VWX1124
◉	3	SYPS assembly	VWR1146
	4	Tray stopper	VNL1519
⚠	5	AC power cord	VDG1028
	6	Cord stopper	CM-22B
NSP	7	Rear panel	VNA1278
	8	PCB cushion	VEC1573
NSP	9	Cord clamper	VNF-005
NSP	10	PCB hinge	VEC1174
⚠	11	Power transformer	VTT1115
⚠	12	Fuse (FU1, FU2) (3.15A)	REK-105
NSP	13	P. plate holder	PNY-405
NSP	14	Side stay (L)	VNE1809
	15	Cord clamper	VNF-069
	16	Insulator	PNW1912
NSP	17	Base chassis	VNA1255
	18	Insulator assembly	VXA1881
	19	Screw	BBZ30P080FCC
	20	Screw	BBZ30P040FMC
	21	Screw	BCZ40P060FZK
	22	Screw	BCZ30P080FCC
◉	23	SCRB assembly	VWV1248
NSP	24	Support cushion	VEC1601
NSP	25	PC suport	VEC1584
NSP	26	Plate	VNE1854
	27	Binder	VEC-067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* 1: Q3 on the SYPS assembly

* 2: CLD - 1700 only

(5) MECHANISM SECTION

Parts List

Mark	No.	Description	Part No.
	1	Mechanism base	VNK1990
	2	Flexible cable	VDA1409
	3	Clamp cam	VNL1500
	4	Shaft holder	VNE1817
	5	Cam plate	VNL1511
	6	CAS spring	VBH1190
	7	Cam gear	VNL1507
	8	CD plate	VNL1512
	9	CDP spring	VBH1191
	10	Rubber belt	VEB1184
	11	Gear pulley	VNL1510
	12	Twin gear	VNL1508
	13	Center gear	VNL1509

Mark	No.	Description	Part No.
	14	L-SW lever	VNL1504
	15	C-SW lever	VNL1505
	16	R-SW lever	VNL1506
NSP	17	LOSB ASS'Y	VWG1307
	18	Synchro gear ASS'Y	VXA1822
	19	Roller	VNL1042
NSP	20	LOMB ASS'Y	VWG1308
	21	Loading motor ASS'Y	VXX1712
NSP	22	Slider motor	VXM1033
	23	Motor pulley	PNW1643
	24	Screw	Z39–019
	25	Screw	BMZ26P040FMC

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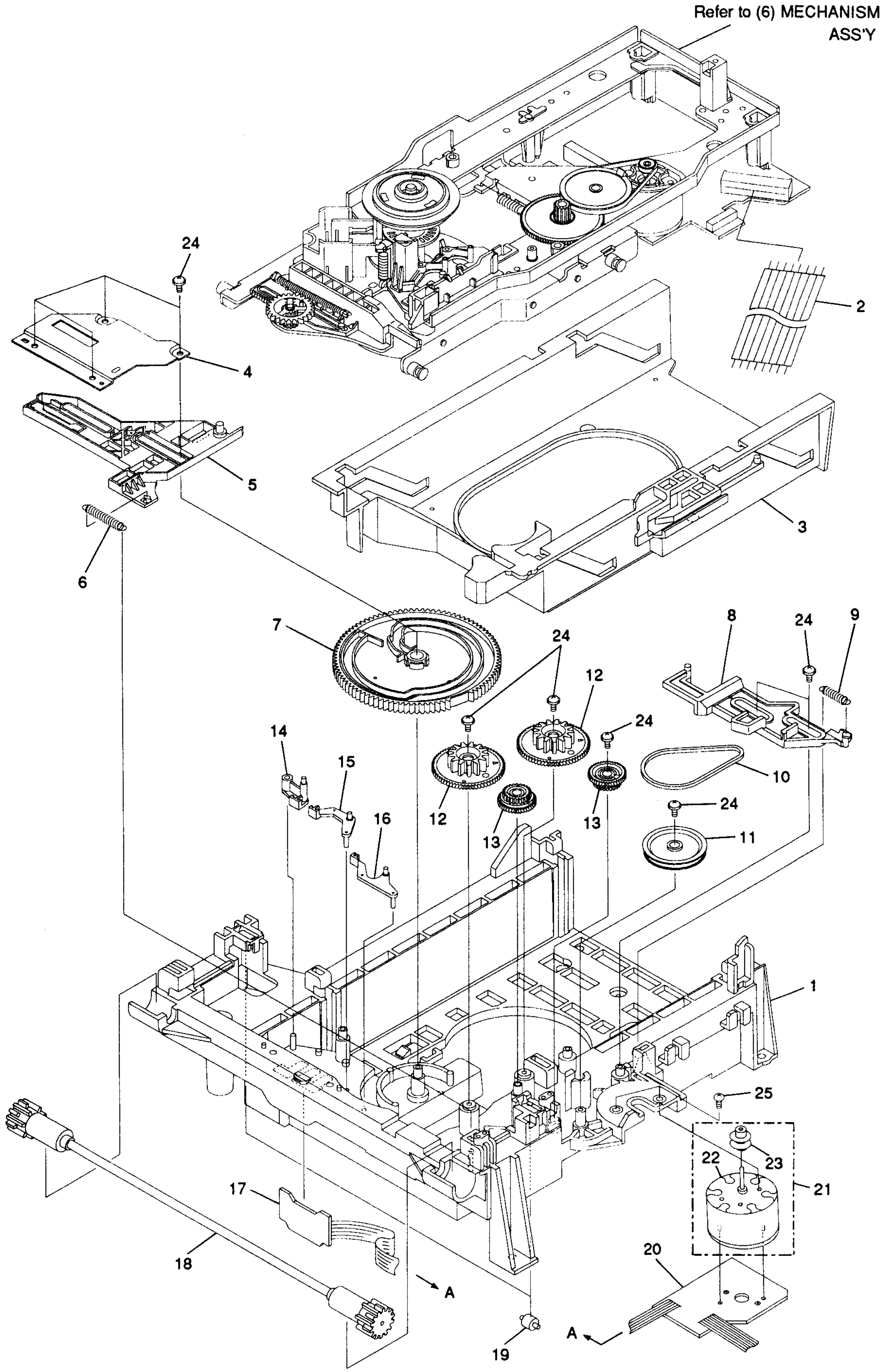
Refer to (6) MECHANISM ASS'Y
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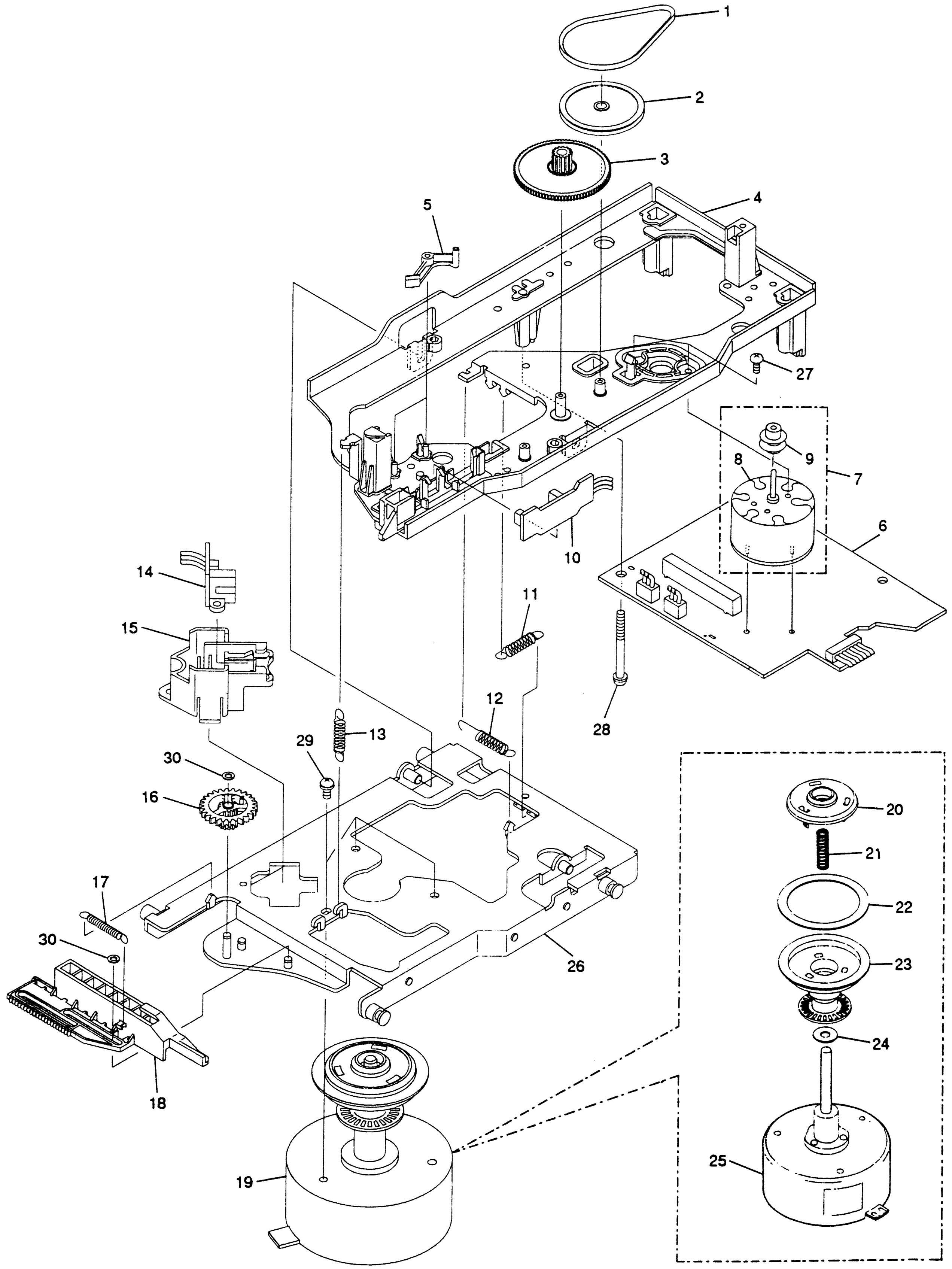
A

(6) MECHANISM ASS'Y

Parts List

Mark	No.	Description	Part No.
	1	CA belt	VEB1077
	2	CA pulley	VNL1496
	3	CA gear	VNL1497
	4	Tilt base	VNL1499
	5	CA-SW lever	VNL1498
NSP	6	CAMB ASS'Y	VWG1306
	7	CRG motor ASS'Y	VXX1261
NSP	8	Slider motor	VXM1033
	9	CA pulley (1)	VNL1197
NSP	10	PKSB ASS'Y	VWG1305
	11	Radial spring	VBH1201
	12	Thrust spring	VBH1200
	13	Tilt tension	VBH1187
NSP	14	FG ASS'Y	VWG1304
	15	FG base	VNL1503
	16	Y gear	VNL1501
	17	Tilt cam spring	VBH1189
	18	Tilt cam	VNL1502
	19	Spindle motor ASS'Y	VXA1825
	20	Centering hab	VNL1174
	21	Centering spring	VBH1083
NSP	22	Rubber sheet	VEB1103
NSP	23	Turn table ASS'Y	VXA1283
NSP	24	Oil stopper	VBF1002
NSP	25	Spindle motor	VXM1050
	26	Motor base	VNE1803
	27	Screw	BMZ26P040FMC
	28	Screw	ABZ30P300FMC
	29	Screw	PMA30P050FMC
	30	Washer	WT26D060D025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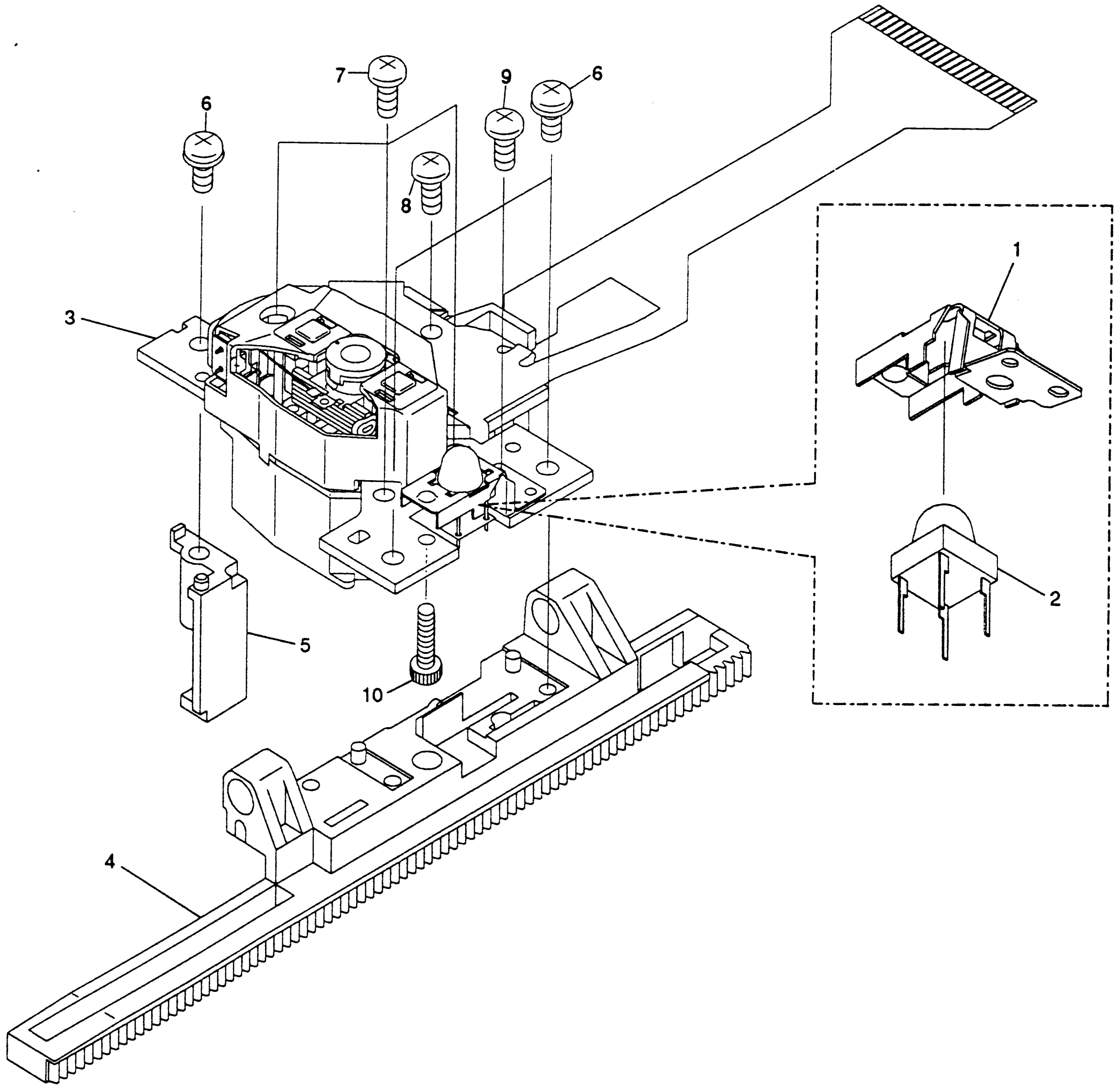
(7) RACK ASS'Y

Parts List

Mark	No.	Description	Part No.
NSP	1	Sensor stay	VBK1036
NSP	2	Tilt sensor	SG–302
NSP	3	Pick up ASS'Y	VWY1030
	4	Rack	VNL1495
	5	Tan. base	VNL1494
	6	Screw	PBB26P080FMC
	7	Screw	PMA20P060FMC
	8	Screw	PMA20P080FMC
	9	Screw	PMH20P040FMC
	10	Screw	SMZ20H120FZK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(8)

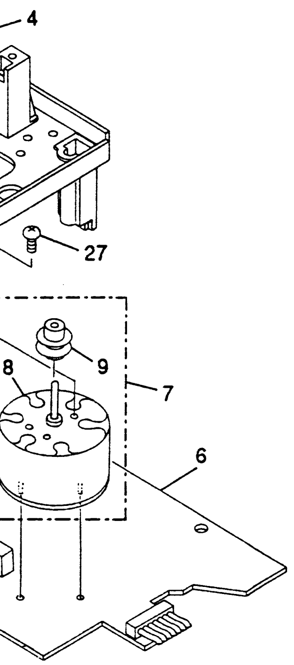
Parts

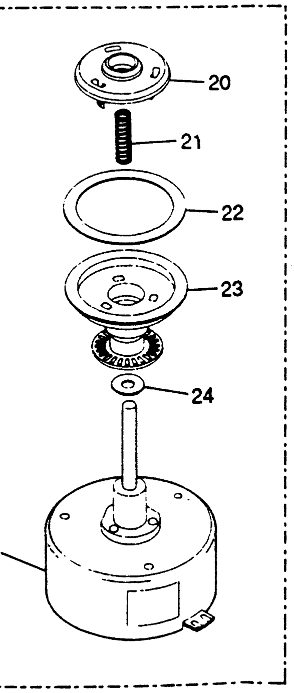
Mark

NSP

NSP
NSP

NSP

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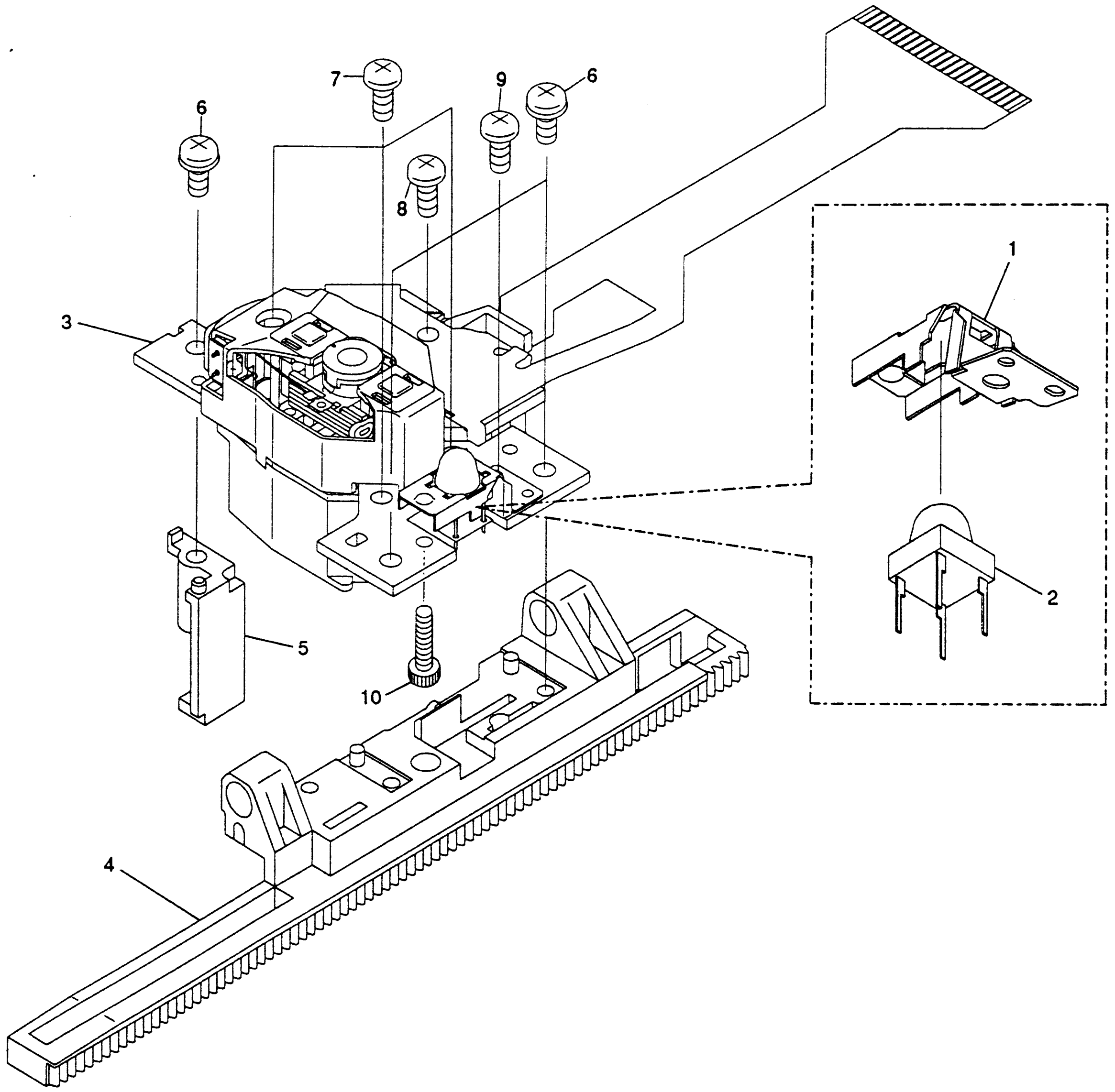
(7) RACK ASS'Y

Parts List

Mark	No.	Description	Part No.
NSP	1	Sensor stay	VBK1036
NSP	2	Tilt sensor	SG–302
NSP	3	Pick up ASS'Y	VWY1030
	4	Rack	VNL1495
	5	Tan. base	VNL1494
	6	Screw	PBB26P080FMC
	7	Screw	PMA20P060FMC
	8	Screw	PMA20P080FMC
	9	Screw	PMH20P040FMC
	10	Screw	SMZ20H120FZK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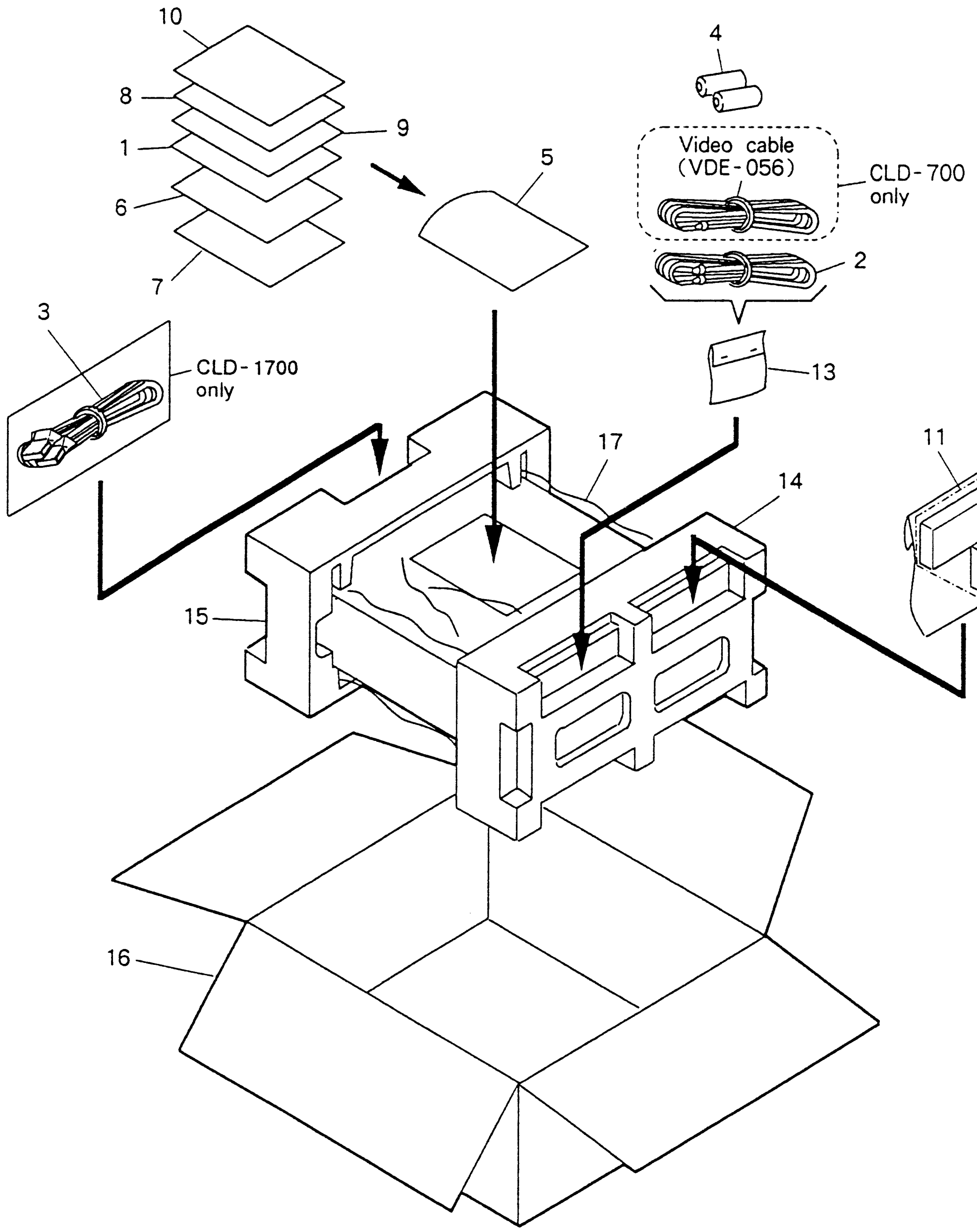
(8) PACKING

Parts List

Mark	No.	Description	Part No.
NSP	1	Warranty card	ARW-088
	2	Connection cord	VDE-055
	3	Euro scart cable (21P)	VDE1027
NSP	4	Battery (R03, AAA)	VEM-022
NSP	5	Polyethylene bag	VHL-014
	6	Operating instructions (English/French/German/Italian)	VRE1010
	7	Operating instructions (Dutch/Swedish/Spanish/Portuguese)	VRF1017
NSP	8	Caution card (EW)	VRM1027
NSP	9	Caution card (UC)	VRM1039
NSP	10	Caution card	VRR1009
	11	Remote control unit (CU-CLD077)	VXX1758
	12	Baterry cover	VNK1293
NSP	13	Polyethylene bag	Z21-029
	14	Pad (F)	VHA1105
	15	Pad (R)	VHA1106
	16	Packing case	VHG1228
	17	Mirror mat	VHL1006


10
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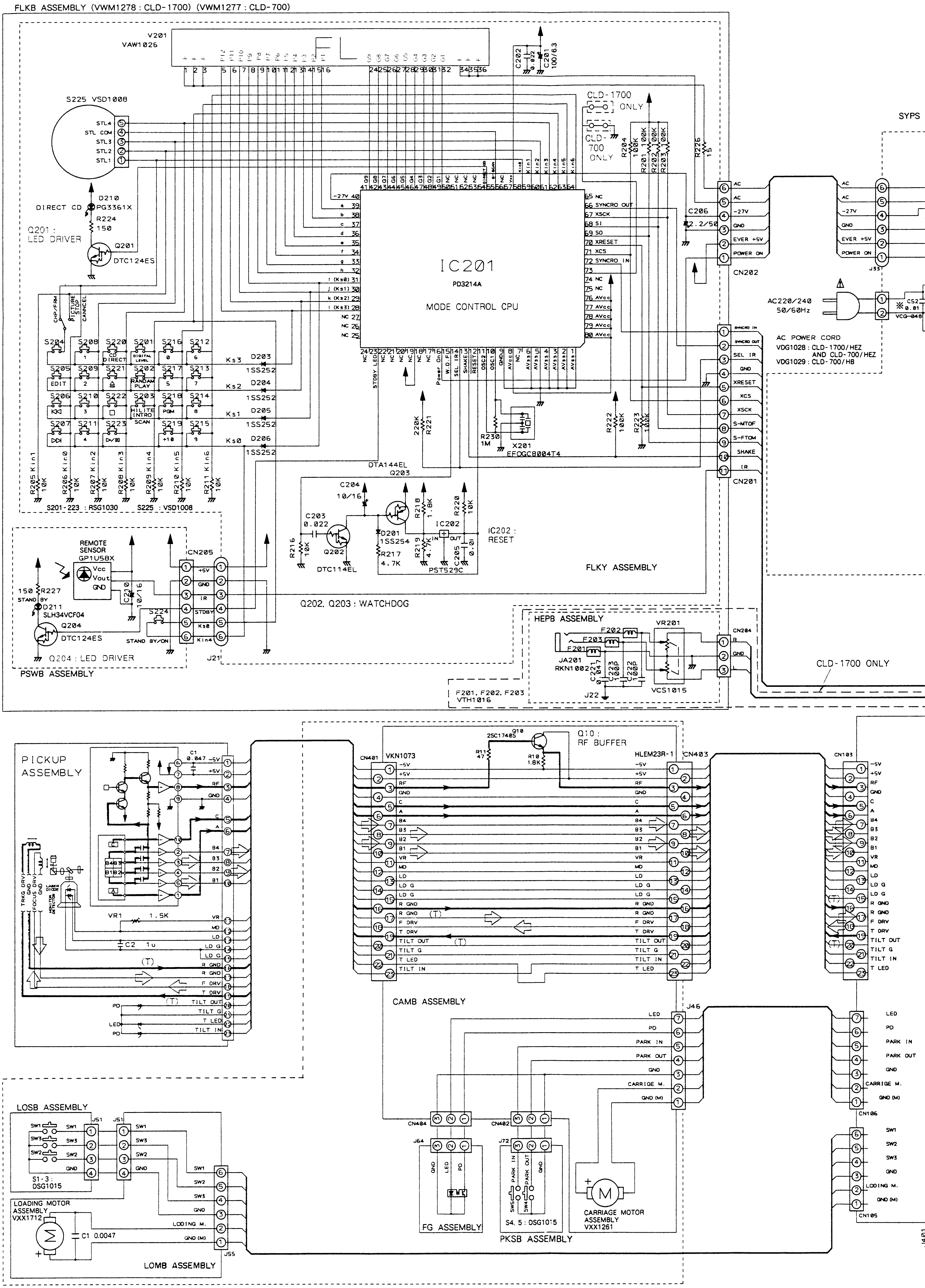
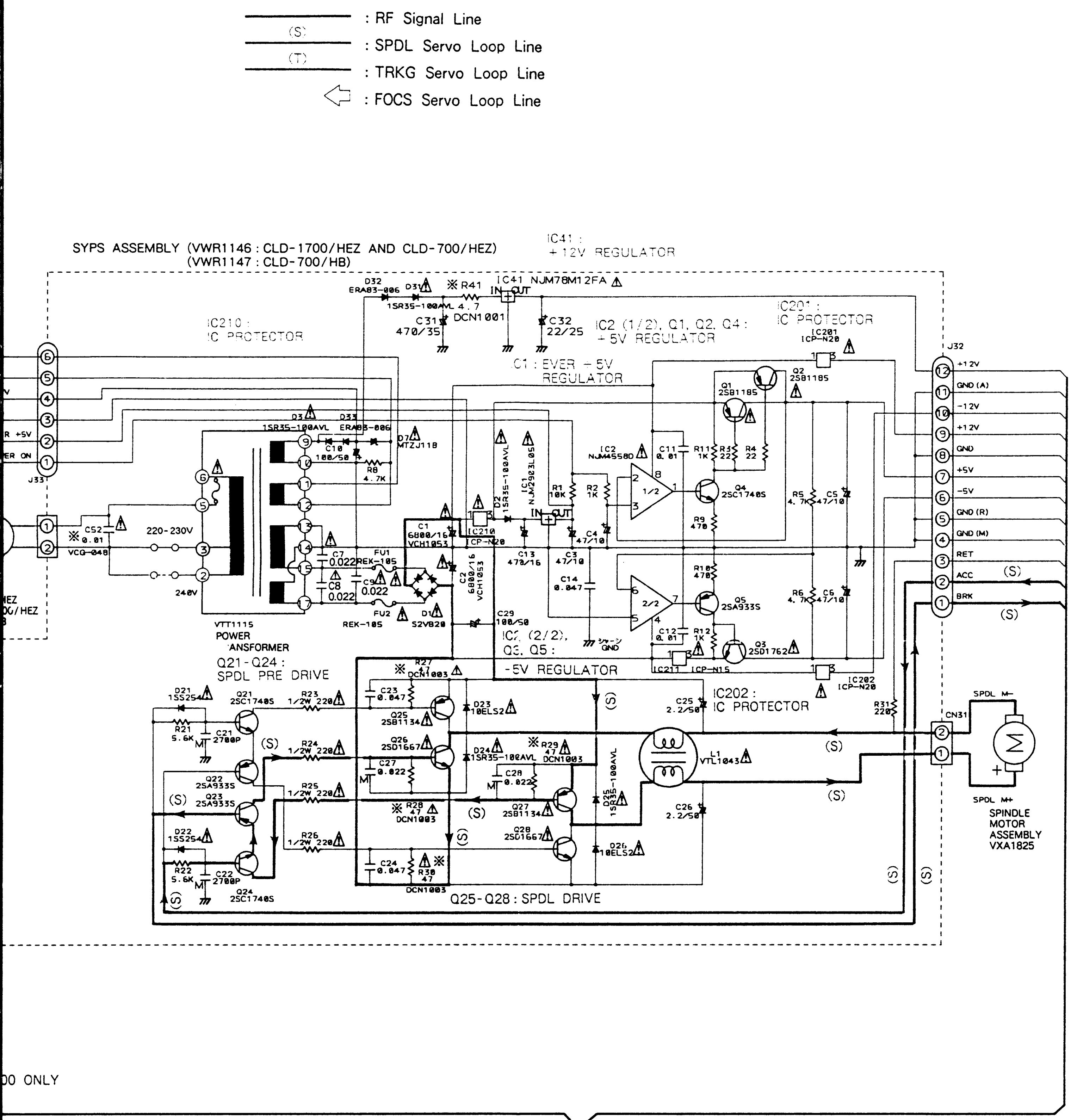
4
Video cable
(VDE-056)
CLD-700
only
2
3
CLD-1700
only
13
17
11
14
15
12
16

3. SCHEMATIC AND PCB CONNECTIONS DIAGRAMS

3.1 FLKY, PSWB, HEPB, SYPS, CAMB, LOSB, LOMB, FG, PKSB, PICKUP ASSEMBLIES AND OVERALL WIRING DIAGRAM


FLKB ASSEMBLY (VWM1278 : CLD-1700) (VWM1277 : CLD-700)
V201
VAW1026
FL
C202 0.022
C201 100/6.3
S225 VSD1008
STL4
STL COM
STL3
STL2
STL1
CLD-1700 ONLY
CLD-700 ONLY
R204 100K
R201 100K
R202 100K
R203 100K
R226 15
D210
PG3361X
DIRECT CD
R224 150
Q201 : LED DRIVER
Q201
DTC124ES
IC201
PD3214A
MODE CONTROL CPU
C206 2.2/50
CN202
AC
-27V
GND
EVER +5V
POWER ON
SYPS
J331
AC220/240 50/60Hz
AC POWER CORD
VDG1028 : CLD-1700/HEZ AND CLD-700/HEZ
VDG1029 : CLD-700/HB
SYNCRO IN
SYNCRO OUT
SEL IR
XRESET
XCS
XSCK
S-MTOF
S-FTOM
SHAKE
IR
CN201
CHP/FRM
PICTURE STOP
CANCEL
S204 S208 S220 S201 S216 S212
S205 S209 S221 S202 S217 S213
S206 S210 S222 S203 S218 S214
S207 S211 S223 S219 S215
CD DIRECT
DIGITAL LEVEL
EDIT
RANDAM PLAY
HILITE INTRO SCAN
PGM
+10
Ks3 Ks2 Ks1 Ks0
D203 D204 D205 D206
1SS252
R205 Kin1 10K
R206 Kin0 10K
R207 Kin2 10K
R208 Kin3 10K
R209 Kin4 10K
R210 Kin5 10K
R211 Kin6 10K
S201-223 : RSG1030
S225 : VSD1008
STDBY LED
R220 220K
R221
R222 100K
R223 100K
R230 1M
X201
EFOGC8004T4
DTA144EL
Q203
C204 10/16
C203 0.022
R216 10K
Q202
DTC114EL
D201 1SS254
R217 4.7K
R218 1.8K
R219 4.7K
R220 10K
IC202
PST529C
C205 0.01
IC202 : RESET
FLKY ASSEMBLY
Q202, Q203 : WATCHDOG
REMOTE SENSOR GP1U58X
Vcc
Vout
GND
150 R227
STAND BY
D211 SLH34VCF04
Q204
DTC124ES
Q204 : LED DRIVER
C210 10/16
S224
STAND BY/ON
CN205
+5V
GND
IR
STDBY
Ks0
Kin4
J21
PSWB ASSEMBLY
HEPB ASSEMBLY
F202
F203
F201
VR201
JA201 RKN1002
C207 0.047
C223 100P
C222 100P
VCS1015
CN204
J22
F201, F202, F203 VTH1016
CLD-1700 ONLY
PICKUP ASSEMBLY
C1 0.047
TRKG DRV
FOCUS DRV
LASER DIODE
MONITOR DETECTOR
VR1 1.5K
C2 1u
-5V
+5V
RF
GND
C
A
B4
B3
B2
B1
VR
MD
LD
LD G
R GND
F DRV
T DRV
TILT OUT
TILT G
T LED
TILT IN
PD
LED
Q10
2SC1740S
R11 47
R10 1.8K
Q10 : RF BUFFER
CN401 VKN1073
HLEM23R-1 CN403
CN103
CAMB ASSEMBLY
J46
PARK IN
PARK OUT
CARRIGE M.
GND (M)
CN106
CN404
CN402
J64
J72
FG ASSEMBLY
PKSB ASSEMBLY
S4, 5 : DSG1015
SW5
SW4
CARRIAGE MOTOR ASSEMBLY VXX1261
LOSB ASSEMBLY
J51
SW1
SW3
SW2
S1-3 : DSG1015
LOADING MOTOR ASSEMBLY VXX1712
C1 0.0047
LODING M.
J55
LOMB ASSEMBLY
CN105
MACB ASSEMBLY (VWM1250)


(S) : RF Signal Line
(T) : SPDL Servo Loop Line
: TRKG Servo Loop Line
: FOCS Servo Loop Line
SYPS ASSEMBLY (VWR1146 : CLD-1700/HEZ AND CLD-700/HEZ)
(VWR1147 : CLD-700/HB)
IC41 : +12V REGULATOR
IC41 NJM78M12FA
IC210 : IC PROTECTOR
IC201 : IC PROTECTOR
IC2 (1/2), Q1, Q2, Q4 : +5V REGULATOR
C1 : EVER -5V REGULATOR
IC2 (2/2), Q3, Q5 : -5V REGULATOR
IC202 : IC PROTECTOR
VTT1115 POWER TRANSFORMER
220-230V
240V
Q21-Q24 : SPDL PRE DRIVE
Q25-Q28 : SPDL DRIVE
J32
+12V
GND (A)
-12V
+12V
GND
+5V
-5V
GND (R)
GND (M)
RET
ACC
BRK
CN31
SPDL M-
SPDL M+
SPINDLE MOTOR ASSEMBLY VXA1825
J331
00 ONLY

Note:

(Type 4)

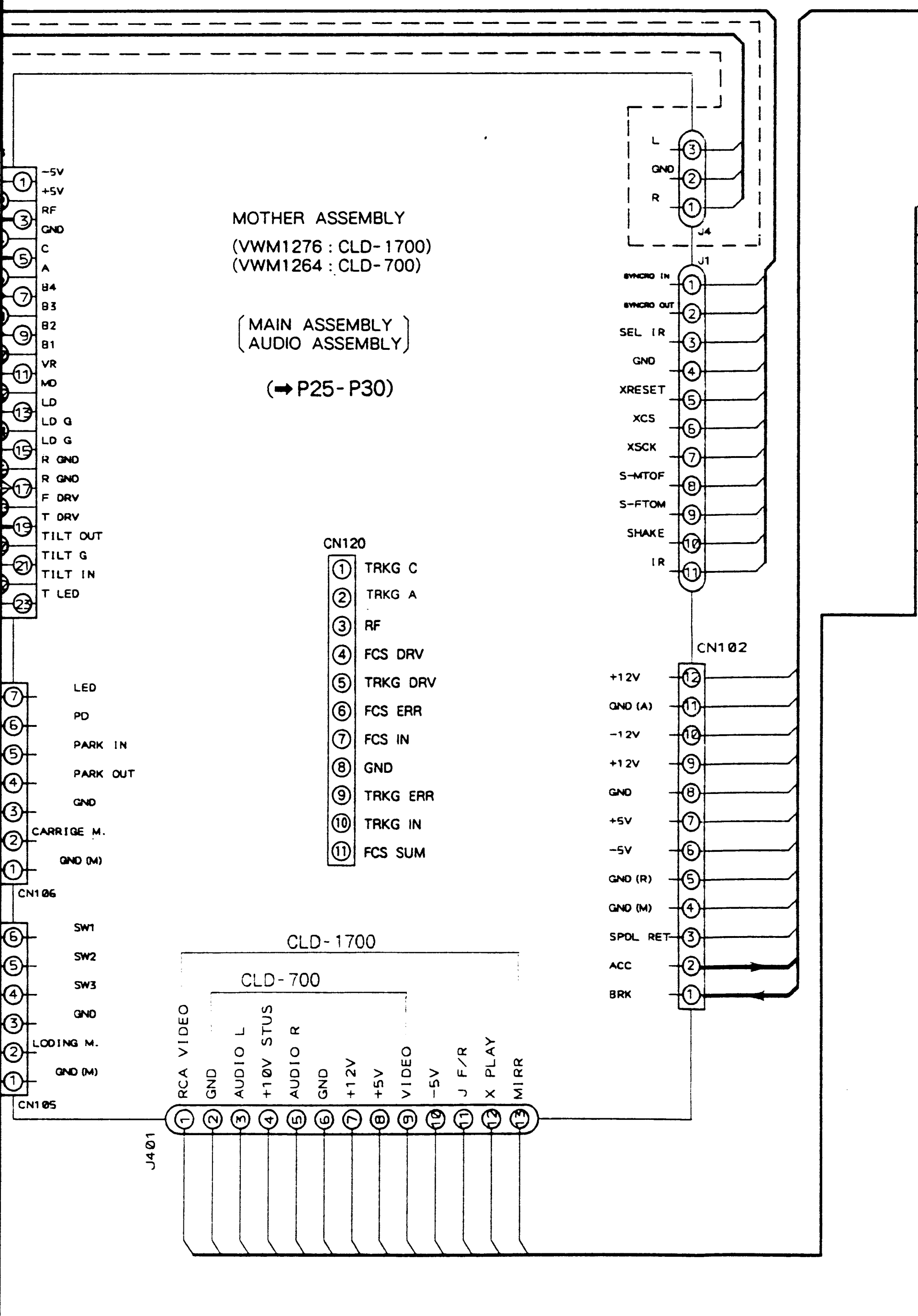
1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance:(F):±1%, (G):±2%, (K):±10%, (M):±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit : p:pF or μF unless otherwise noted.
   Ratings : capacitor (μF) / voltage (V) unless otherwise noted.
   Rated voltage : 50V except for electrolytic capacitors.
5. **COILS:**
   Unit : m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ : DC voltage (V) in PLAY mode unless otherwise noted.
   ⇦mA or ←mA: DC current in PLAY mode unless otherwise noted.
   Value in ( ) is DC current in STOP mode.
7. **OTHERS**
   - ● ➡ : Signal route.
   - ● ⊘ : Adjustment point.
   - ●▼(Red) : Measurement point.
   - ● The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

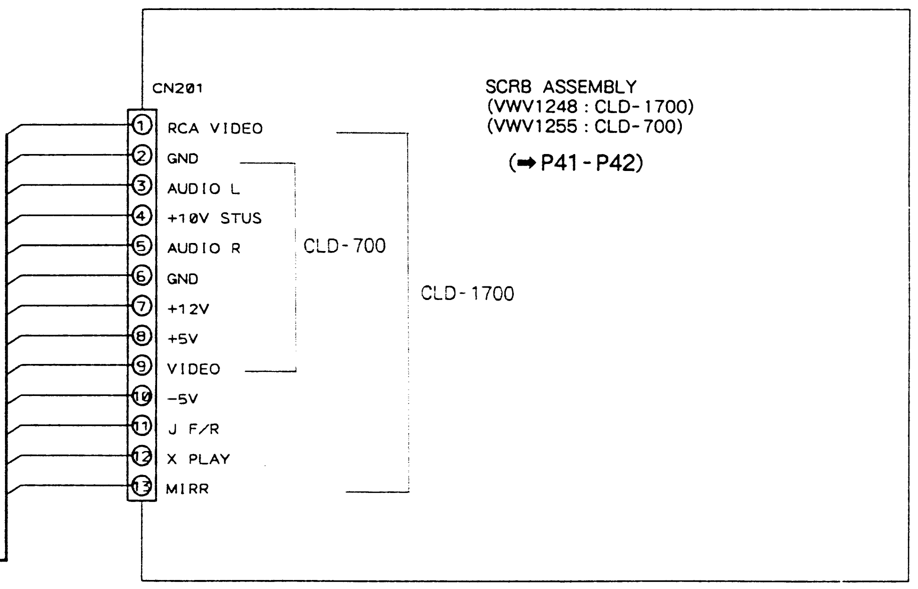
PKSB ASSEMBLY
S224 :POWER (STANDBY/ON)

PKSB ASSEMBLY
S4 :PARK OUT
S5 :PARK IN

LOSB ASSEMBLY
S1 :TILT LOADING 1
S2 :TILT LOADING 2
S3 :TILT LOADING 3

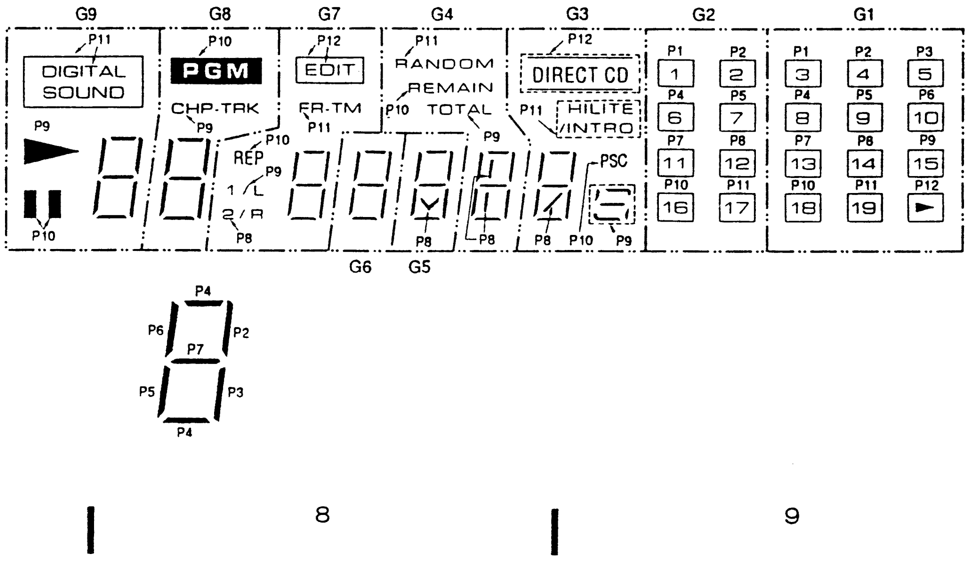
FLKY ASSEMBLY
S201 :LANGUAGE
S202 :RANDOM PLAY
S203 :HILITE/INTRO SCAN
S204 :CHP/TIME
S205 :PGM EDIT
S206 :SKIP(◀◀)
S207 :SKIP(▶▶)
S208 :1
S209 :2
S210 :3
S211 :4
S212 :6
S213 :7
S214 :8
S215 :9
S216 :0
S217 :5
S218 :PGM
S219 :+10
S220 :DIRECT CD (CD)
S221 :OPEN/CLOSE (▲)
S222 :STOP (■)
S223 :PLAY/PAUSE (▶/II)
S225 :ROTARY ENCODER

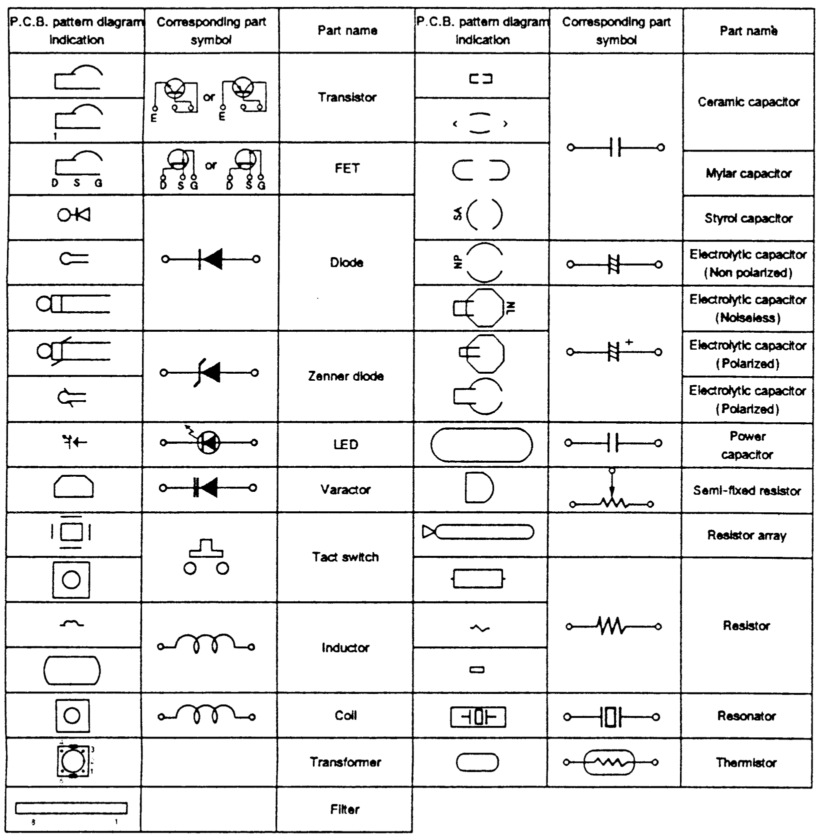

MOTHER ASSEMBLY
(VWM1276 : CLD-1700)
(VWM1264 : CLD-700)
MAIN ASSEMBLY
AUDIO ASSEMBLY
(➡P25-P30)
CN120
TRKG C
TRKG A
RF
FCS DRV
TRKG DRV
FCS ERR
FCS IN
GND
TRKG ERR
TRKG IN
FCS SUM
J4
L
GND
R
J1
SYNCRO IN
SYNCRO OUT
SEL IR
GND
XRESET
XCS
XSCK
S-MTOF
S-FTOM
SHAKE
IR
CN102
+12V
GND (A)
-12V
+12V
GND
+5V
-5V
GND (R)
GND (M)
SPDL RET
ACC
BRK
CN106
CN105
LED
PD
PARK IN
PARK OUT
GND
CARRIGE M.
GND (M)
SW1
SW2
SW3
GND
LODING M.
GND (M)
CLD-1700
CLD-700
J401
RCA VIDEO
GND
AUDIO L
+10V STUS
AUDIO R
GND
+12V
+5V
VIDEO
-5V
J F/R
X PLAY
MIRR


CN201
RCA VIDEO
GND
AUDIO L
+10V STUS
AUDIO R
GND
+12V
+5V
VIDEO
-5V
J F/R
X PLAY
MIRR
CLD-700
CLD-1700
SCRB ASSEMBLY
(VWV1248 : CLD-1700)
(VWV1255 : CLD-700)
(➡P41-P42)

FL Display (V201: VAW 1026)

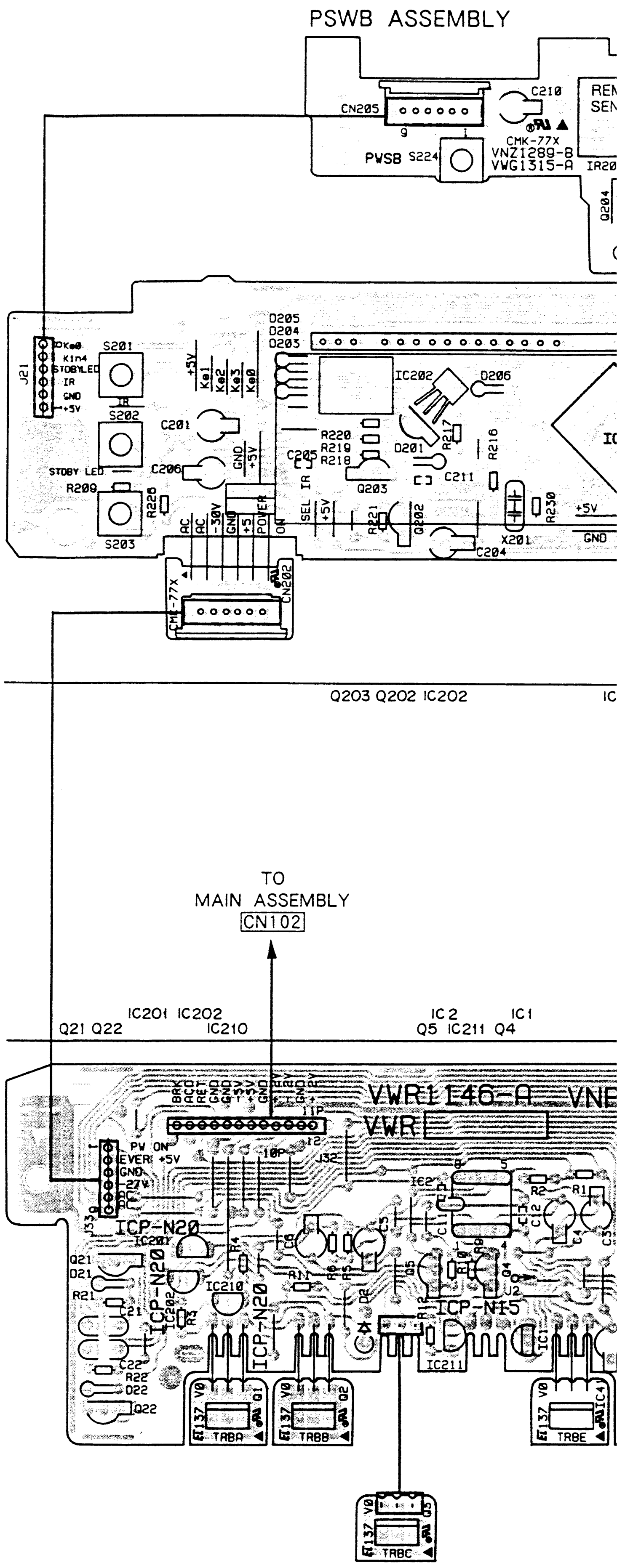
- ANODE GRID ASSIGNMENT


G9
G8
G7
G4
G3
G2
G1
P11
DIGITAL SOUND
P10
PGM
P12
EDIT
RANDOM
REMAIN
TOTAL
DIRECT CD
HILITE
INTRO
CHP-TRK
FR-TM
REP
1/L
2/R
PSC
P9
P8
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
G6
G5
P1
P2
P3
P4
P5
P6
P7

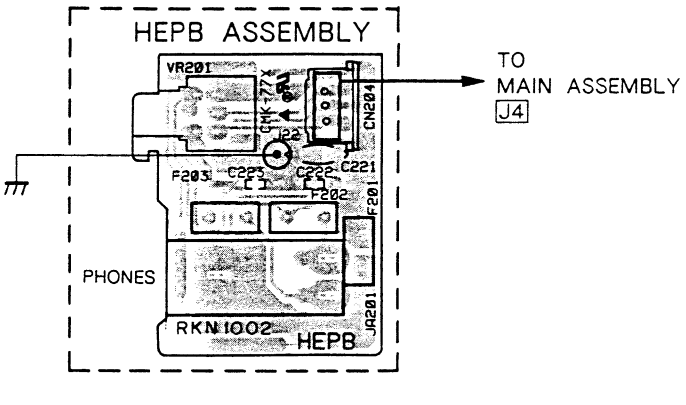


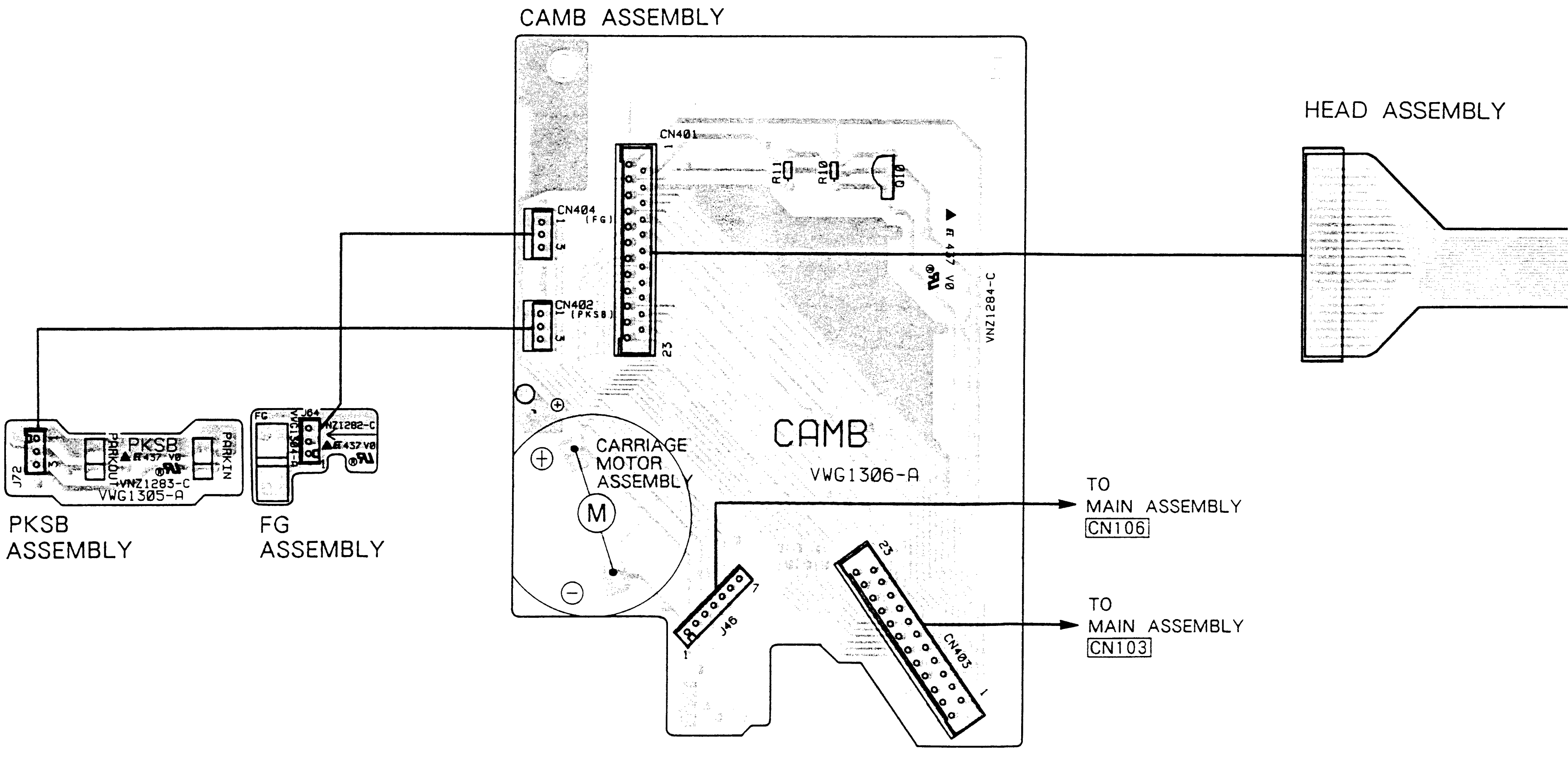
P.C.B. pattern diagram indication	Corresponding part symbol	Part name	P.C.B. pattern diagram indication	Corresponding part symbol	Part name
		Transistor			Ceramic capacitor
		FET			Mylar capacitor
					Styrol capacitor
		Diode			Electrolytic capacitor (Non polarized)
					Electrolytic capacitor (Noiseless)
		Zenner diode			Electrolytic capacitor (Polarized)
					Electrolytic capacitor (Polarized)
		LED			Power capacitor
		Varactor			Semi-fixed resistor
		Tact switch			Resistor array
		Inductor			Resistor
		Coil			Resonator
		Transformer			Thermistor
		Filter			

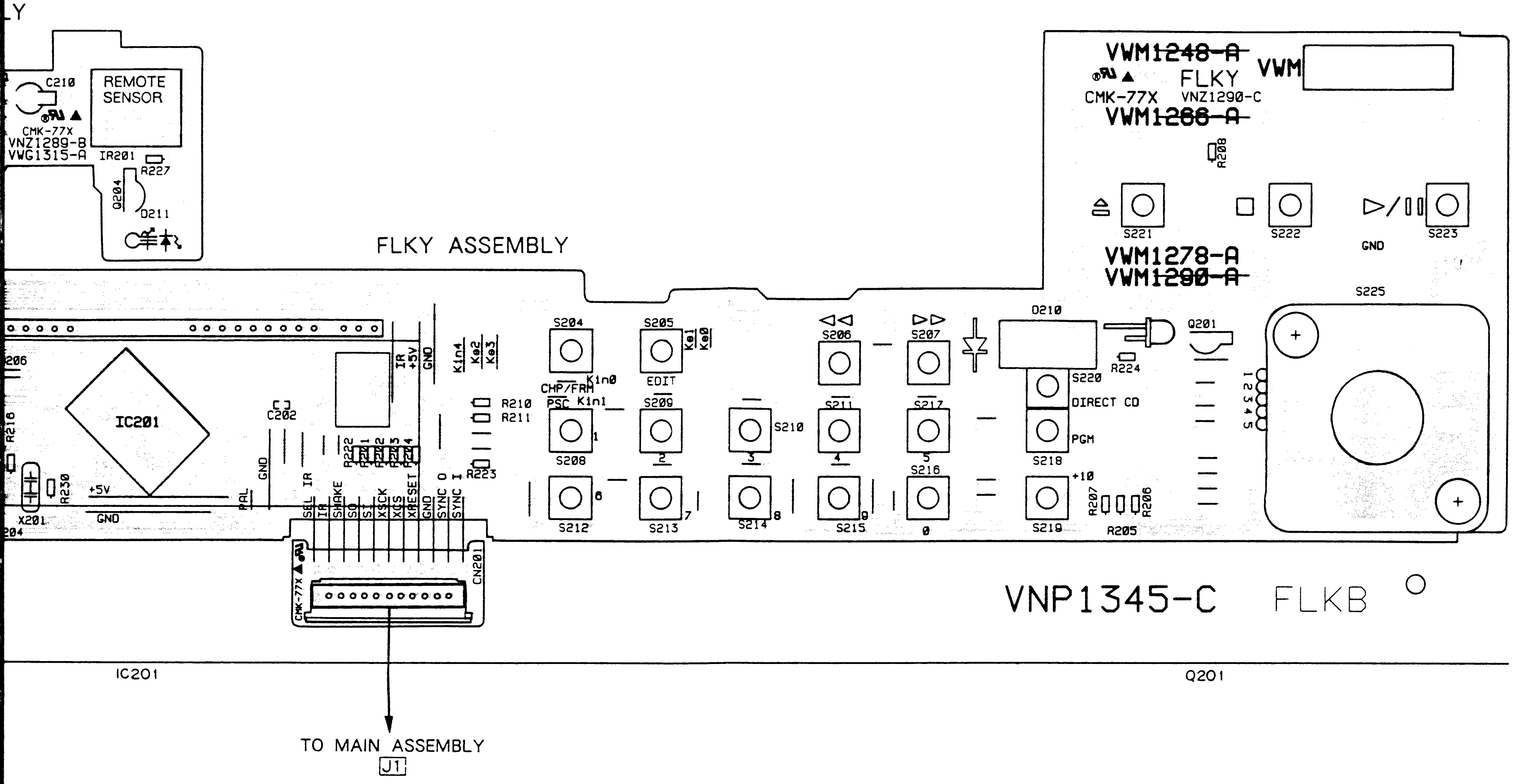
1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with ○ shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.

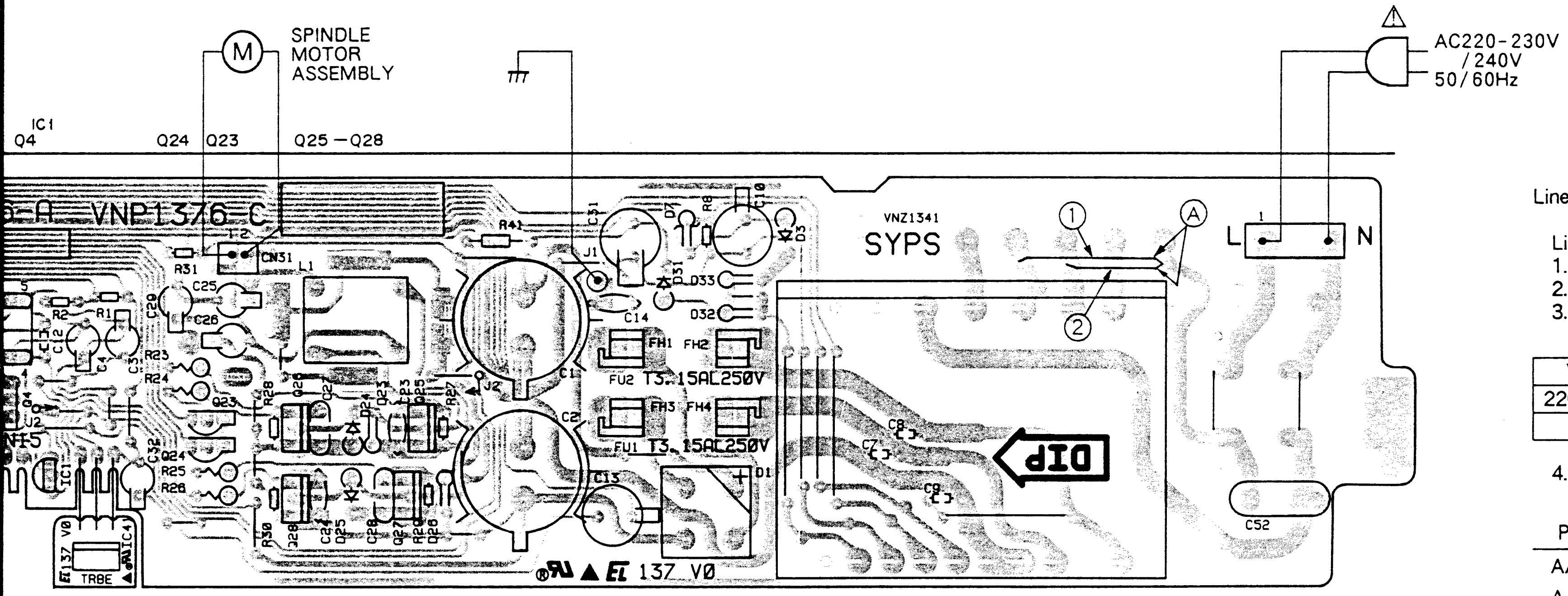

PSWB ASSEMBLY
CN205
C210
CMK-77X
VNZ1289-B
VWG1315-A
PWSB S224
REM SEN
IR20
Q204
J21
S201
S202
S203
STDBY LED
R209
R228
C201
C206
D205 D204 D203
IC202
D206
R220 R219 R218
C205
D201
Q203
R217
R216
C211
R221
Q202
R230
X201
C204
CN202
CMK-77X
Q203 Q202 IC202
TO MAIN ASSEMBLY CN102
Q21 Q22
IC201 IC202 IC210
IC2 IC1 Q5 IC211 Q4
VWR1146-A
J33
J32
ICP-N20
IC201
IC210
ICP-N15
IC211
Q21 D21 R21
C22 R22 D22
TRBA
TRBB
TRBC
TRBE

CLD-1700 ONLY


HEPB ASSEMBLY
VR201
CN204
CMK-77X
C223
C222
C221
F203
F202
F201
JA201
PHONES
RKN1002
HEPB
TO MAIN ASSEMBLY J4


CAMB ASSEMBLY
CN401
R11
R10
Q10
CN404 (FG)
CN402 (PKSB)
VNZ1284-C
CAMB
VWG1306-A
CARRIAGE MOTOR ASSEMBLY
M
J46
CN403
TO MAIN ASSEMBLY CN106
TO MAIN ASSEMBLY CN103
HEAD ASSEMBLY
J72
PKSB
PARKOUT
PARKIN
VNZ1283-C
VWG1305-A
PKSB ASSEMBLY
FG
J64
VNZ1282-C
FG ASSEMBLY


FLKY ASSEMBLY
REMOTE SENSOR
VNZ1289-B
VWG1315-A
CMK-77X
IR201
Q204
D211
~~VWM1248-A~~
FLKY
VWM
CMK-77X VNZ1290-C
~~VWM1266-A~~
VWM1278-A
~~VWM1290-A~~
S221
S222
S223
GND
S225
IC201
S204
S205
S206
S207
S208
S209
S210
S211
S212
S213
S214
S215
S216
S217
S218
S219
S220
D210
Q201
EDIT
CHP/FRM
PSC
DIRECT CD
PGM
CN201
VNP1345-C FLKB
IC201
Q201
TO MAIN ASSEMBLY
J1


SPINDLE MOTOR ASSEMBLY
M
IC1
Q4
Q24
Q23
Q25 –Q28
AC220-230V /240V 50/60Hz
VNP1376-C
VNZ1341
SYPS
①
②
Ⓐ
L
N
CN31
L1
FH1
FH2
FH3
FH4
FU1 T3.15AL250V
FU2 T3.15AL250V
DIP
C52
TRBE
137 V0

Line voltage selection

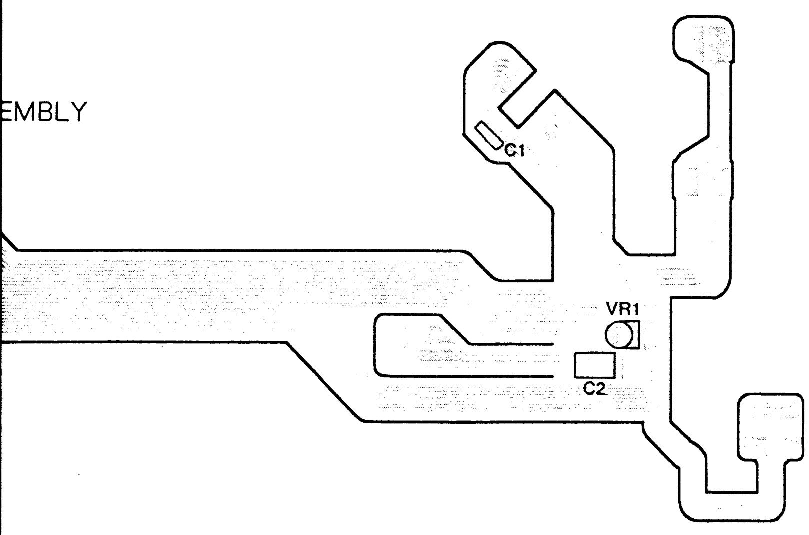
Line voltage can be changed as follows :

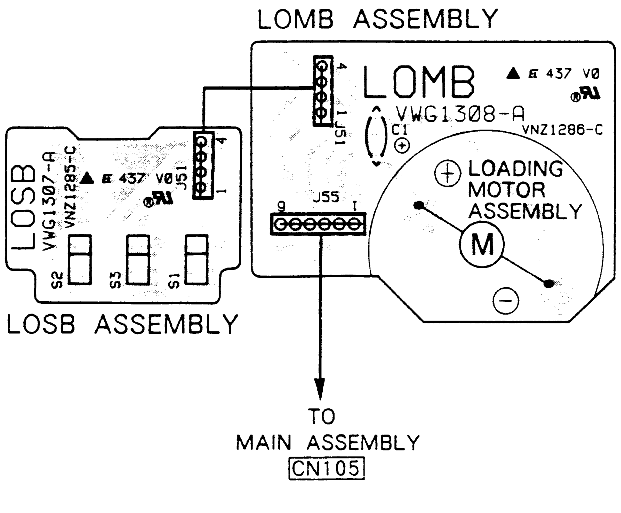
1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the position of the jumper wire Ⓐ as follows.

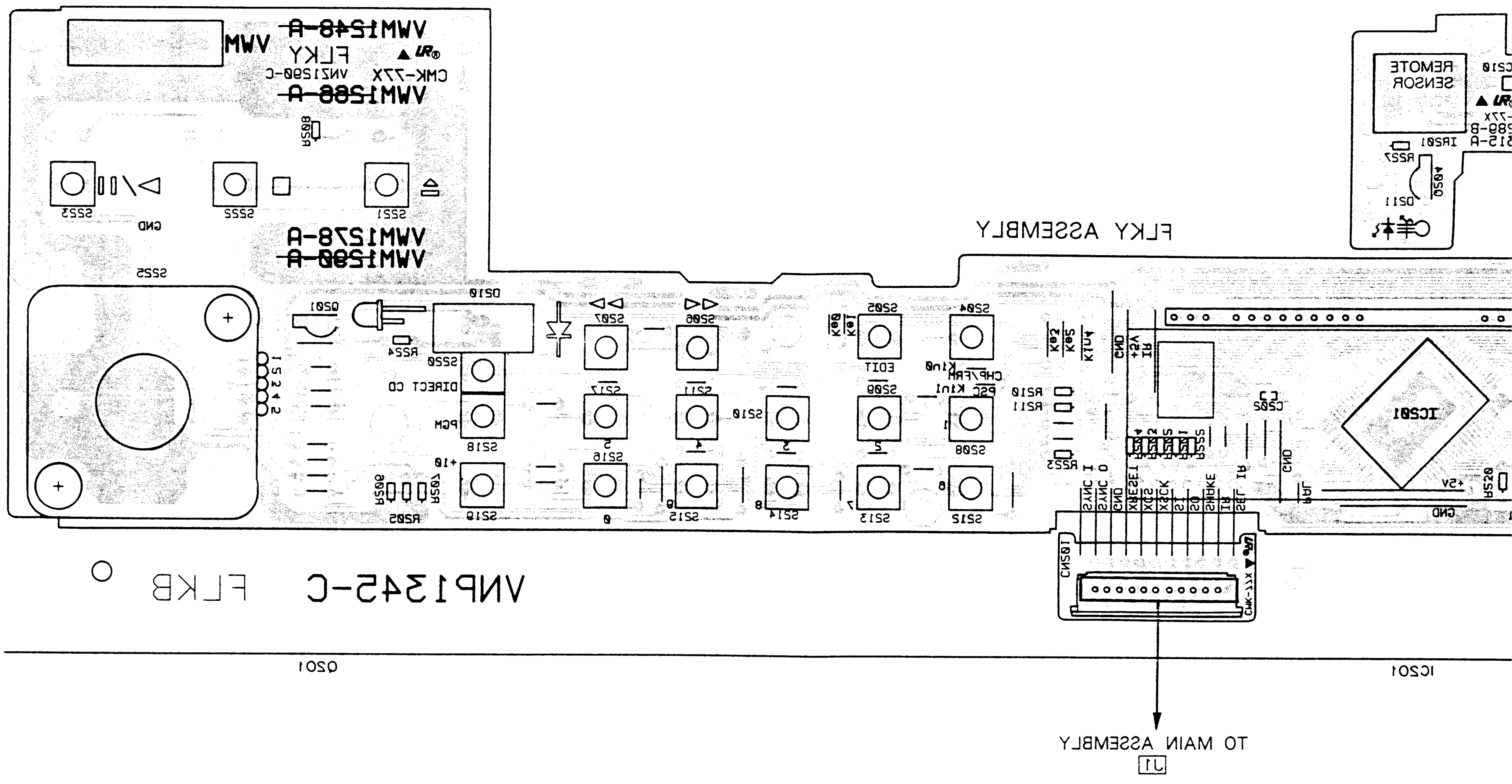
Voltage	jumper wire Ⓐ position
220V-230V	①
240V	②

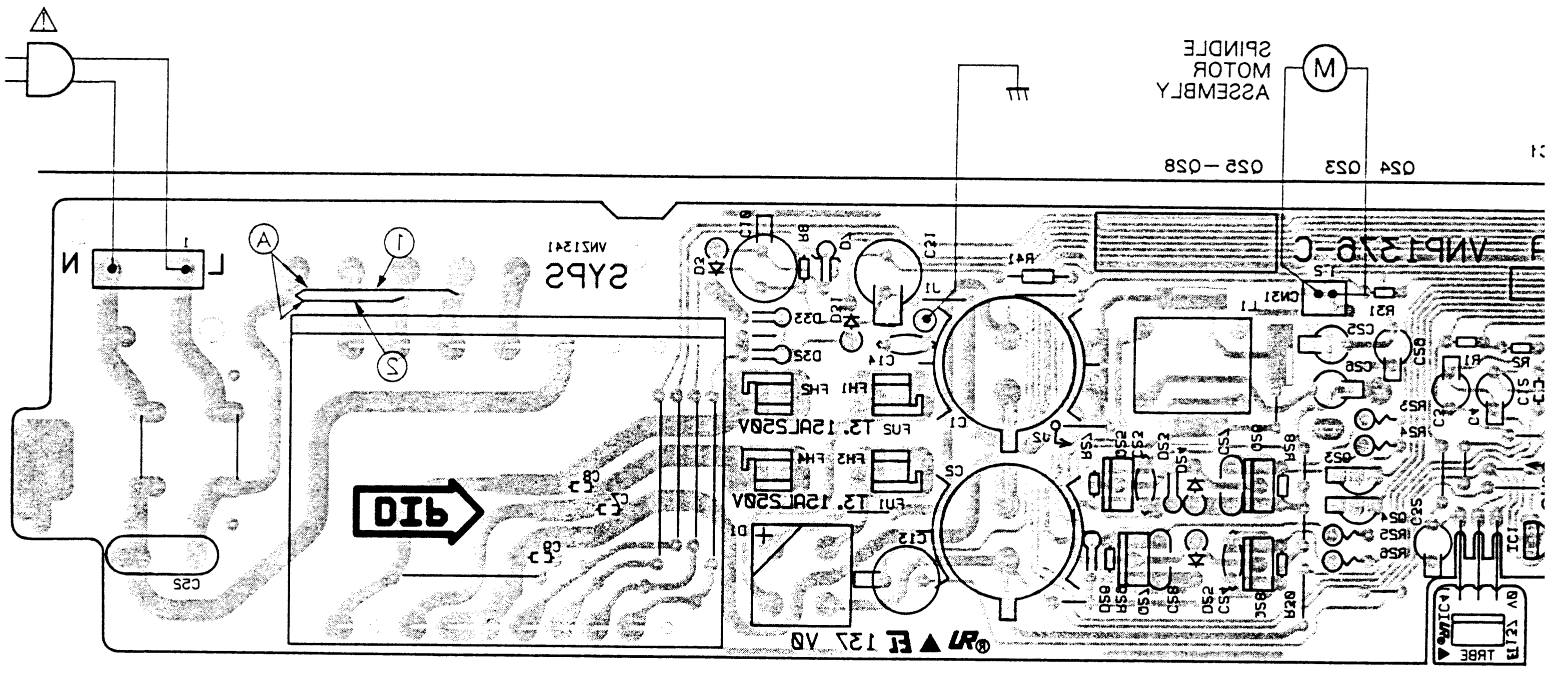
4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label


EMBLY
C1
VR1
C2


LOMB ASSEMBLY
LOMB
VWG1308-A
VNZ1286-C
437 V0
J51
LOADING MOTOR ASSEMBLY
M
LOSB
VWG1307-A
VNZ1285-C
J55
S1
S2
S3
LOSB ASSEMBLY
TO MAIN ASSEMBLY
CN105


VWM1248-A
VWM
FLKY
CMK-77X VNZ1290-C
VWM1268-A
VWM1278-A
VWM1290-A
S221
S222
S223
S225
GND
Q201
D210
S220
DIRECT CD
PCM
S218
S219
S216
S217
S211
S210
S215
S214
S213
S212
S206
S207
S205
S204
S209
S208
EDIT
CHP/FRM
PSC KIn1
IC201
REMOTE SENSOR
FLKY ASSEMBLY
CN201
VNP1345-C
FLKB
Q201
IC201
TO MAIN ASSEMBLY
J1


AC220-230V
/240V
50/60Hz
SPINDLE
MOTOR
ASSEMBLY
M
Q25-Q28
Q23
Q24
N
L
Ⓐ
①
②
VNZ1341
SYPS
DIP
CS2
VNP1376-C
CN31
FU1 T3.15AL250V
FU2 T3.15AL250V
C1
C2
D1
R41
R31

Line voltage selection

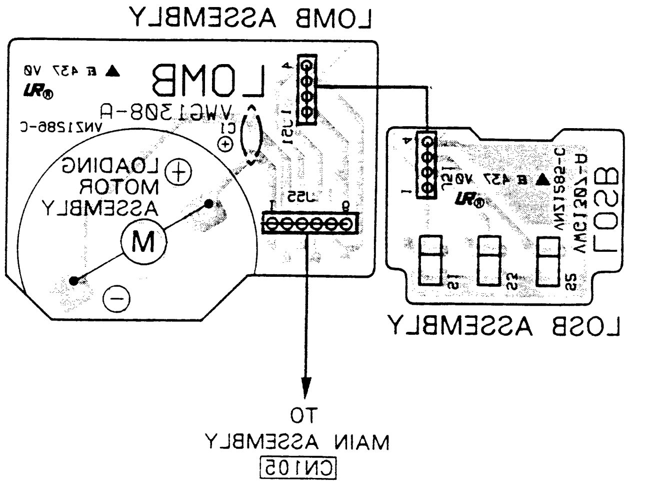
Line voltage can be changed as follows :

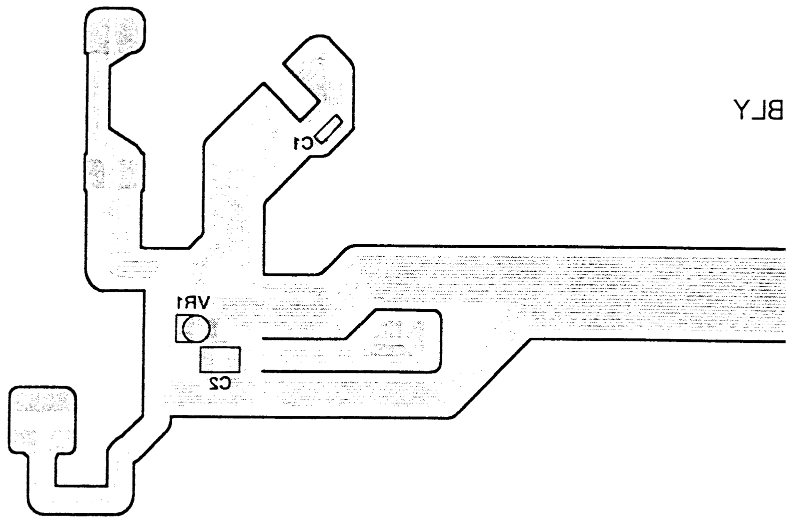
1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the position of the jumper wire Ⓐ as follows.

Voltage	jumper wire Ⓐ position
220V-230V	①
240V	②

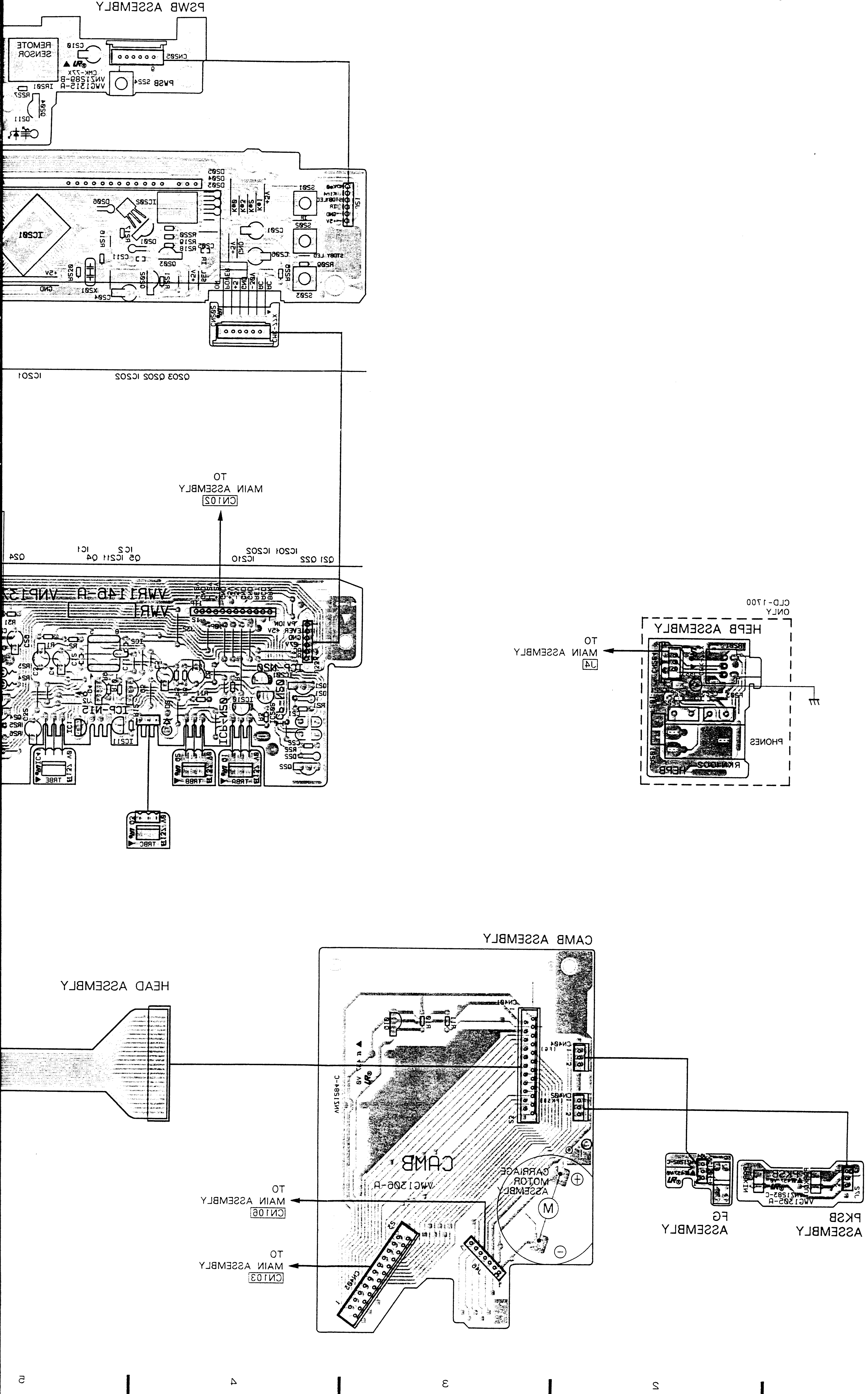
4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label

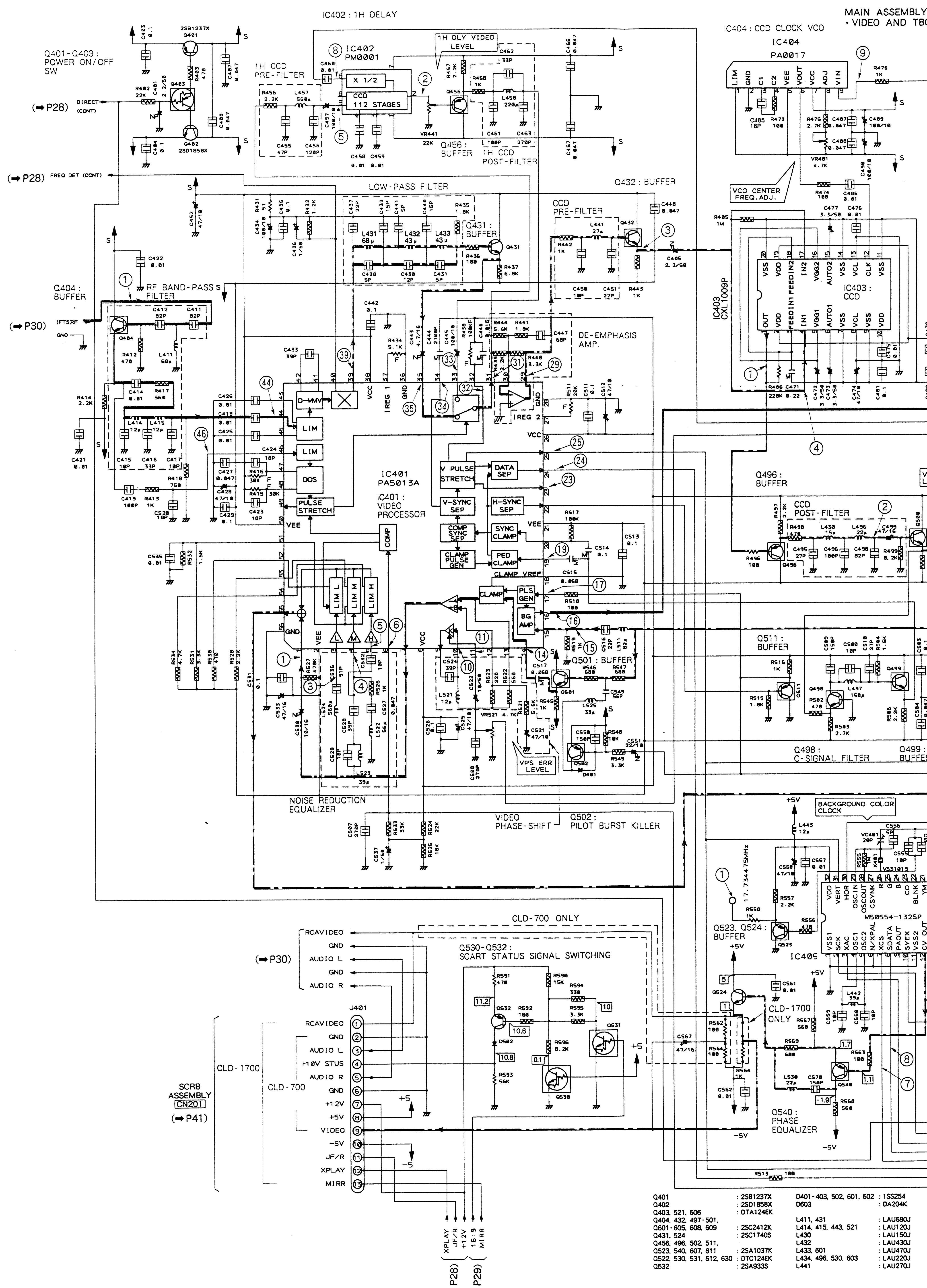

LOMB ASSEMBLY
LOMB
VWG1308-A
VNZ1286-C
LOADING
MOTOR
ASSEMBLY
M
JS1
JS2
C1
LOSB
VWG1297-A
VNZ1285-C
S1
S2
S5
LOSB ASSEMBLY
TO
MAIN ASSEMBLY
CN105


BLY
C1
VR1
C2

This P.C.B. connection diagram is viewed from the foil side.


PSWB ASSEMBLY
REMOTE SENSOR
TO MAIN ASSEMBLY CN102
CLD-1700 ONLY
HEPB ASSEMBLY
TO MAIN ASSEMBLY J4
PHONES
HEAD ASSEMBLY
CAMB ASSEMBLY
CAMB
VWG1306-A
CARRIAGE MOTOR ASSEMBLY
M
TO MAIN ASSEMBLY CN106
TO MAIN ASSEMBLY CN103
FG ASSEMBLY
PKSB ASSEMBLY
VWG1305-A

3.2 MAIN ASSEMBLY (1/2)



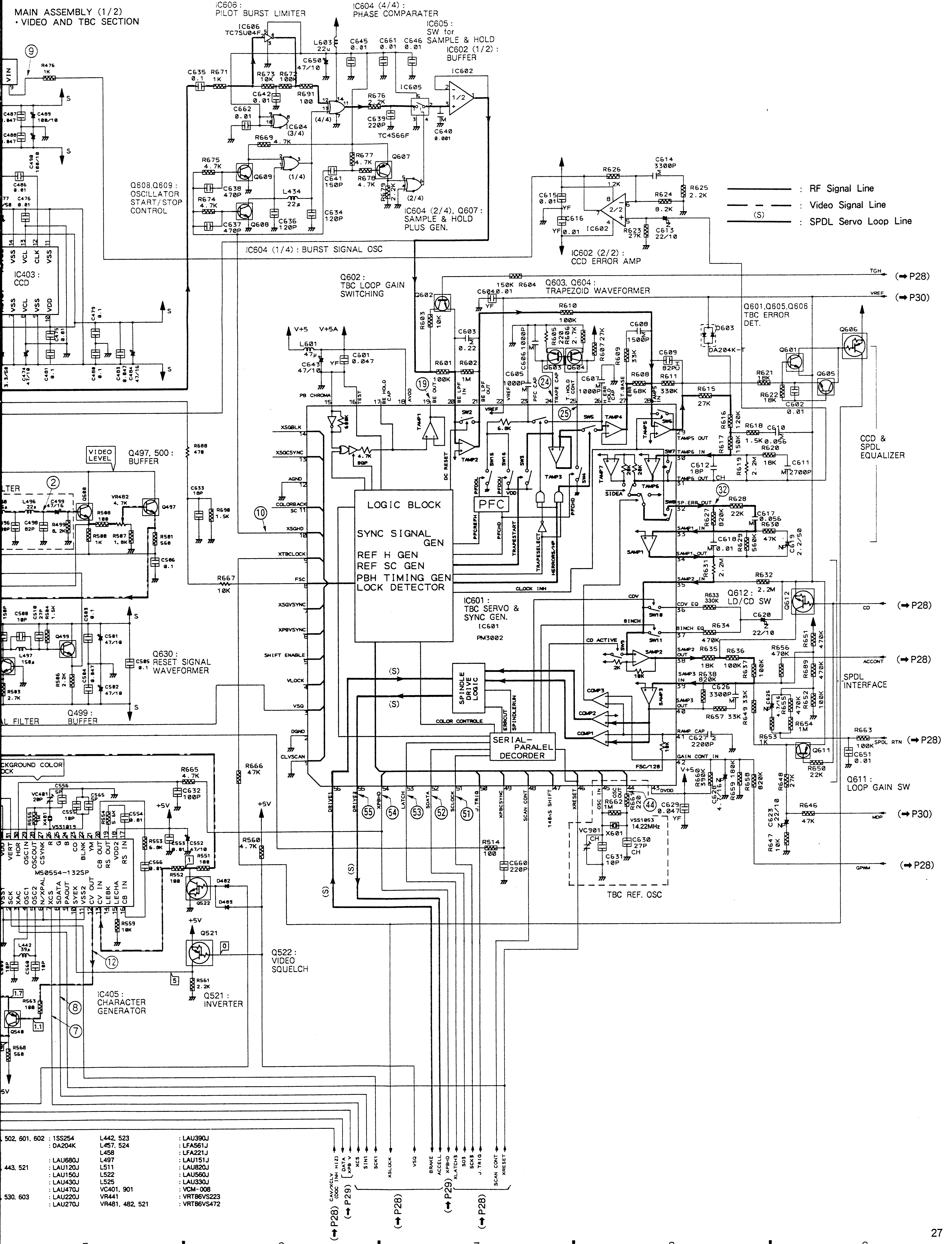
IC402 : 1H DELAY
IC402 PM0001
X 1/2
CCD 112 STAGES
1H DLY VIDEO LEVEL
1H CCD PRE-FILTER
Q456 : BUFFER
1H CCD POST-FILTER
Q401-Q403 : POWER ON/OFF SW
2SB1237X Q401
Q403
Q402 2SD1858X
(➡P28) DIRECT (CONT)
(➡P28) FREQ DET (CONT)
LOW-PASS FILTER
Q431 : BUFFER
Q432 : BUFFER
CCD PRE-FILTER
DE-EMPHASIS AMP.
Q404 : BUFFER
RF BAND-PASS FILTER
(➡P30) (FTSRF GND
IC401 PA5013A
IC401 : VIDEO PROCESSOR
D-MMV
LIM
DOS
PULSE STRETCH
COMP
V PULSE STRETCH
DATA SEP
V-SYNC SEP
H-SYNC SEP
COMP SYNC SEP
SYNC CLAMP
CLAMP PULSE GEN
PED CLAMP
CLAMP VREF
CLAMP
PLS GEN
BG AMP
LIM L
LIM M
LIM H
IREG 1
IREG 2
VCC
VEE
GND
Q501 : BUFFER
VPS ERR LEVEL
NOISE REDUCTION EQUALIZER
VIDEO PHASE-SHIFT
Q502 : PILOT BURST KILLER
IC404 : CCD CLOCK VCO
IC404 PA0017
LIM GND C1 C2 VEE VOUT VCC ADJ VIN
VCO CENTER FREQ. ADJ.
MAIN ASSEMBLY · VIDEO AND TB
IC403 CXL1009P
IC403 : CCD
VSS VDD FEEDIN1 FEEDIN2 IN2 VGG2 AUTO2 VSS VCL CLK VSS
OUT VDD FEEDIN1 IN1 VGG1 AUTO1 VSS VCL VSS VDD
Q496 : BUFFER
CCD POST-FILTER
Q511 : BUFFER
Q498 : C-SIGNAL FILTER
Q499 : BUFFER
BACKGROUND COLOR CLOCK
17.734475MHz
Q523, Q524 : BUFFER
IC405
M50554-132SP
CLD-1700 ONLY
Q540 : PHASE EQUALIZER
CLD-700 ONLY
Q530-Q532 : SCART STATUS SIGNAL SWITCHING
(➡P30) RCAVIDEO GND AUDIO L GND AUDIO R
J401
RCAVIDEO GND AUDIO L +10V STUS AUDIO R GND +12V +5V VIDEO -5V JF/R XPLAY MIRR
CLD-1700
CLD-700
SCRB ASSEMBLY CN201 (➡P41)
XPLAY JF/R +12V 16:9 MIRR
(➡P28) (➡P29)
1 2 3 4 5
B C D E F

Q401 : 2SB1237X
Q402 : 2SD1858X
Q403, 521, 606 : DTA124EK
Q404, 432, 497-501,
Q601-605, 608, 609 : 2SC2412K
Q431, 524 : 2SC1740S
Q456, 496, 502, 511,
Q523, 540, 607, 611 : 2SA1037K
Q522, 530, 531, 612, 630 : DTC124EK
Q532 : 2SA933S

D401-403, 502, 601, 602 : 1SS254
D603 : DA204K

L411, 431 : LAU680J
L414, 415, 443, 521 : LAU120J
L430 : LAU150J
L432 : LAU430J
L433, 601 : LAU470J
L434, 496, 530, 603 : LAU220J
L441 : LAU270J

MAIN ASSEMBLY (1/2)
· VIDEO AND TBC SECTION

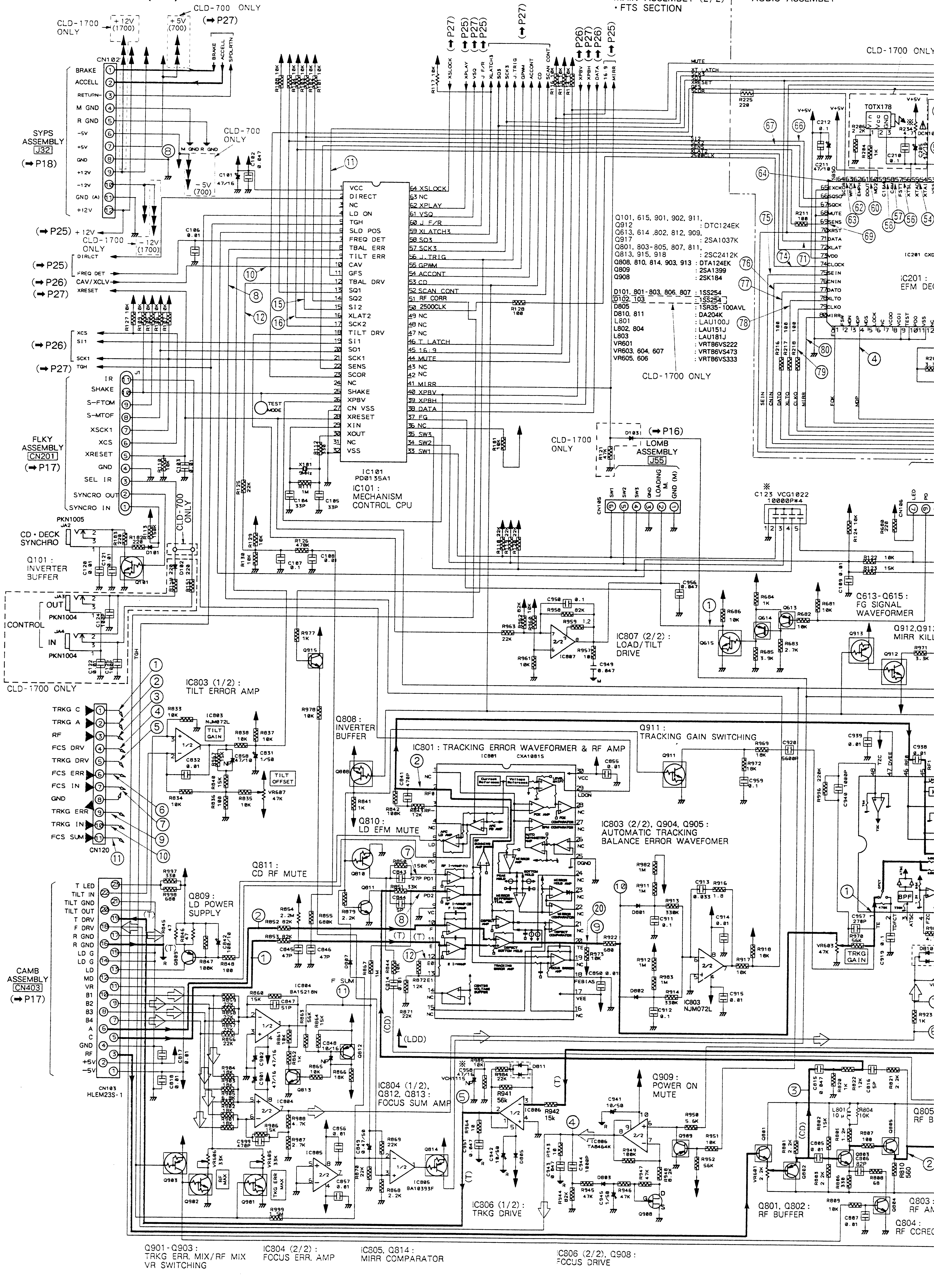


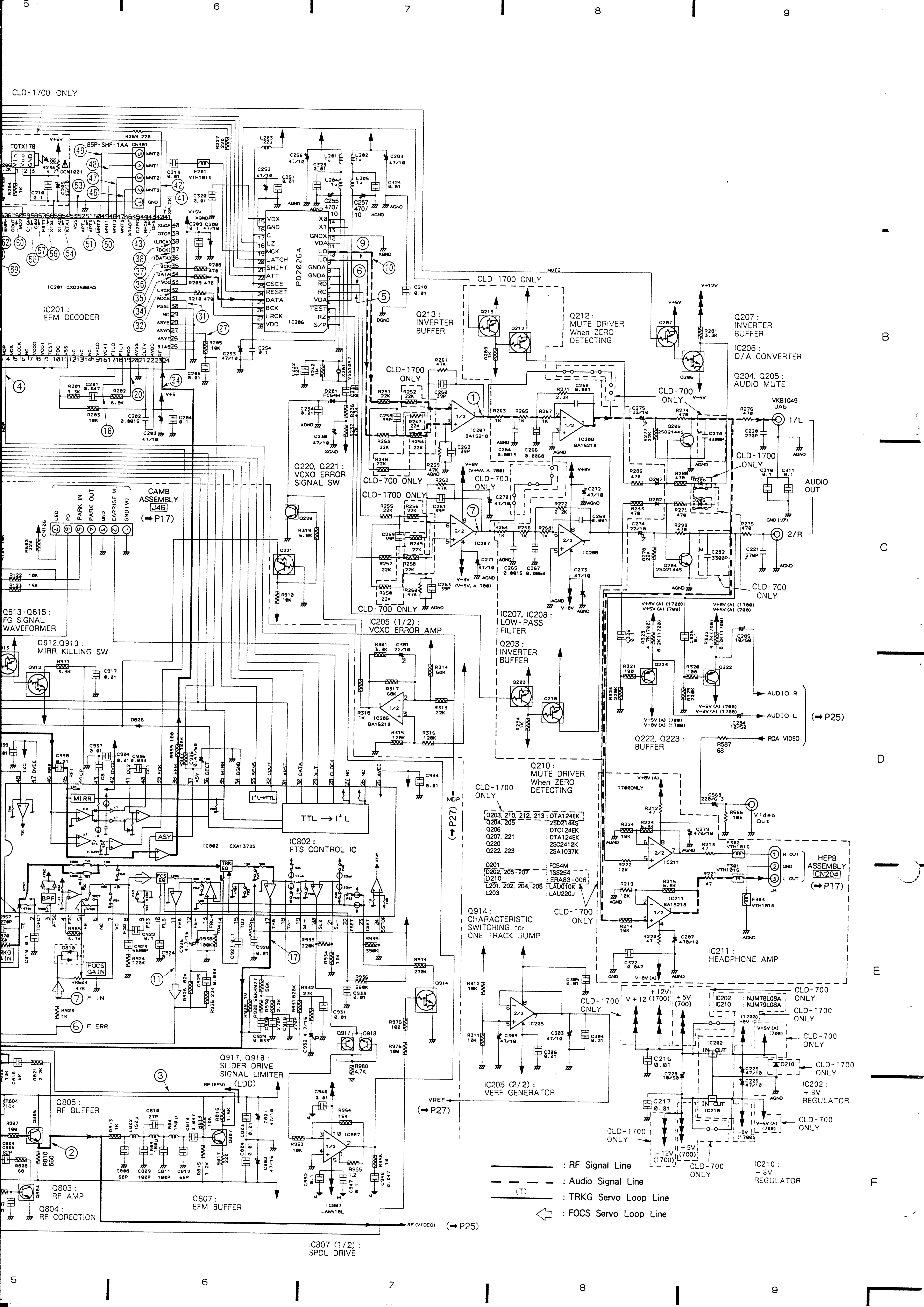
5
6
7
8
9
IC606 : PILOT BURST LIMITER
IC606 TC7SU04F
IC604 (4/4) : PHASE COMPARATER
IC605 : SW for SAMPLE & HOLD
IC602 (1/2) : BUFFER
IC602
IC605
TC4S66F
IC604 (3/4)
IC604 (2/4), Q607 : SAMPLE & HOLD PLUS GEN.
Q608,Q609 : OSCILLATOR START/STOP CONTROL
IC604 (1/4) : BURST SIGNAL OSC
IC403 : CCD
VIN
Q602 : TBC LOOP GAIN SWITCHING
Q603, Q604 : TRAPEZOID WAVEFORMER
Q601,Q605,Q606 TBC ERROR DET.
IC602 (2/2) : CCD ERROR AMP
RF Signal Line
Video Signal Line
(S)
SPDL Servo Loop Line
TGH (➡P28)
VREF (➡P30)
CCD & SPDL EQUALIZER
LOGIC BLOCK
SYNC SIGNAL GEN
REF H GEN
REF SC GEN
PBH TIMING GEN
LOCK DETECTOR
IC601 : TBC SERVO & SYNC GEN.
IC601 PM3002
PFC
SPINDLE DRIVE LOGIC
SERIAL-PARALEL DECORDER
Q612 : LD/CD SW
CD (➡P28)
ACCONT (➡P28)
SPDL INTERFACE
SPDL RTN (➡P28)
Q611 : LOOP GAIN SW
MDP (➡P30)
GPWM (➡P28)
TBC REF. OSC
VSS1053 14.22MHz
X601
VC901
VIDEO LEVEL
Q497, 500 : BUFFER
Q630 : RESET SIGNAL WAVEFORMER
Q499 : BUFFER
BACKGROUND COLOR
M50554-132SP
IC405 : CHARACTER GENERATOR
Q522 : VIDEO SQUELCH
Q521 : INVERTER
CAV/XCLV (OSC INH HIZ)
DATA XPB V
XCS
SIN1
SCK1
XSLOCK
VSQ
BRAKE
ACCELL
XPBHD
XLATCH3
SO3
SCK3
J.TRIG
SCAN CONT
XRESET
(⬆P28)
(⬆P29)
(⬆P28)
(⬆P29)
(⬆P28)

502, 601, 602 : 1SS254
: DA204K
: LAU680J
443, 521 : LAU120J
: LAU150J
: LAU430J
: LAU470J
530, 603 : LAU220J
: LAU270J

L442, 523 : LAU390J
L457, 524 : LFA561J
L458 : LFA221J
L497 : LAU151J
L511 : LAU820J
L522 : LAU560J
L525 : LAU330J
VC401, 901 : VCM-008
VR441 : VRTB6VS223
VR481, 482, 521 : VRTB6VS472

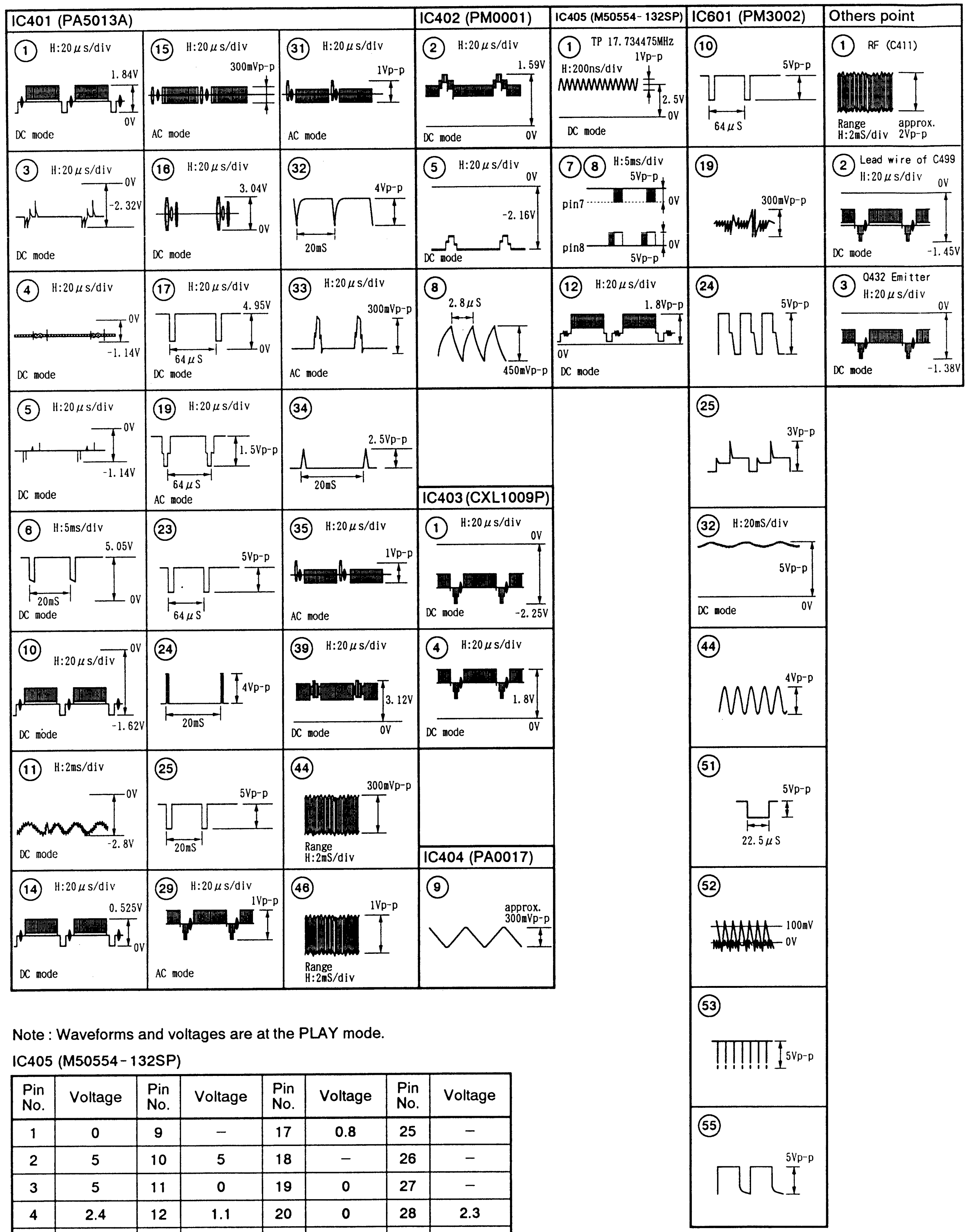
3.3 MAIN ASSEMBLY (2/2) AND AUDIO ASSEMBLY


MAIN ASSEMBLY (2/2)
· FTS SECTION
AUDIO ASSEMBLY
CLD-1700 ONLY
CLD-700 ONLY
SYPS ASSEMBLY J32 (→P18)
CN102
BRAKE
ACCELL
RETURN
M GND
R GND
-5V
+5V
GND
+12V
-12V
GND (A)
+12V
FLKY ASSEMBLY CN201 (→P17)
IR
SHAKE
S-FTOM
S-MTOF
XSCK1
XCS
XRESET
GND
SEL IR
SYNCRO OUT
SYNCRO IN
CD · DECK SYNCHRO
PKN1005
Q101 : INVERTER BUFFER
CONTROL
OUT
IN
PKN1004
IC101 PD0135A1
IC101 : MECHANISM CONTROL CPU
TEST MODE
Q101, 615, 901, 902, 911, Q912 : DTC124EK
Q613, 614, 802, 812, 909, Q917 : 2SA1037K
Q801, 803-805, 807, 811, Q813, 915, 918 : 2SC2412K
Q808, 810, 814, 903, 913 : DTA124EK
Q809 : 2SA1399
Q908 : 2SK184
D101, 801-803, 806, 807 : 1SS254
D102, 103 : 1SS254
D805 : 1SR35-100AVL
D810, 811 : DA204K
L801 : LAU100J
L802, 804 : LAU151J
L803 : LAU181J
VR601 : VRTB6VS222
VR603, 604, 607 : VRTB6VS473
VR605, 606 : VRTB6VS333
CLD-1700 ONLY
LOMB ASSEMBLY J55 (→P16)
C123 VCG1022 10000P*4
IC201 : EFM DEC
TOTX178
Q613-Q615 : FG SIGNAL WAVEFORMER
Q912,Q913 : MIRR KILL
IC807 (2/2) : LOAD/TILT DRIVE
IC803 (1/2) : TILT ERROR AMP
TILT GAIN
TILT OFFSET
Q808 : INVERTER BUFFER
IC801 : TRACKING ERROR WAVEFORMER & RF AMP
IC801 CXA1081S
Q911 : TRACKING GAIN SWITCHING
IC803 (2/2), Q904, Q905 : AUTOMATIC TRACKING BALANCE ERROR WAVEFOMER
Q810 : LD EFM MUTE
Q811 : CD RF MUTE
Q809 : LD POWER SUPPLY
TRKG C
TRKG A
RF
FCS DRV
TRKG DRV
FCS ERR
FCS IN
GND
TRKG ERR
TRKG IN
FCS SUM
CN120
CAMB ASSEMBLY CN403 (→P17)
T LED
TILT IN
TILT GND
TILT OUT
T DRV
F DRV
R GND
R GND
LD G
LD G
LD
MD
VR
B1
B2
B3
B4
A
C
GND
RF
+5V
-5V
CN103 HLEM23S-1
IC804 (1/2), Q812, Q813 : FOCUS SUM AMP
Q909 : POWER ON MUTE
IC806 (1/2) : TRKG DRIVE
TRKG GAIN
RF MAX
TKG ERR MAX
Q801, Q802 : RF BUFFER
Q803 : RF AM
Q804 : RF CORRE
Q805
Q901-Q903 : TRKG ERR. MIX/RF MIX VR SWITCHING
IC804 (2/2) : FOCUS ERR. AMP
IC805, Q814 : MIRR COMPARATOR
IC806 (2/2), Q908 : FOCUS DRIVE
1
2
3
4
5
A
B
C
D
E


5
6
7
8
9
B
C
D
E
F
CLD-1700 ONLY
IC201 : EFM DECODER
IC201 CXD2500AQ
PD2026A
IC206
TOTX178
B5P-SHF-1AA CN301
Q213 : INVERTER BUFFER
Q212 : MUTE DRIVER When ZERO DETECTING
Q207 : INVERTER BUFFER
IC206 : D/A CONVERTER
Q204, Q205 : AUDIO MUTE
CLD-700 ONLY
MUTE
VKB1049 J6A
1/L
2/R
AUDIO OUT
CAMB ASSEMBLY J46
(→P17)
LED
PD
PARK IN
PARK OUT
GND
CARRIGE M.
GND(M)
Q220, Q221 : VCXO ERROR SIGNAL SW
IC207, IC208 : LOW-PASS FILTER
Q203 : INVERTER BUFFER
IC205 (1/2) : VCXO ERROR AMP
Q613-Q615 : FG SIGNAL WAVEFORMER
Q912,Q913 : MIRR KILLING SW
Q222, Q223 : BUFFER
AUDIO R
AUDIO L
(→P25)
RCA VIDEO
Video Out
Q210 : MUTE DRIVER When ZERO DETECTING
CLD-1700 ONLY
Q203, 210, 212, 213 : DTA124EK
Q204, 205 : 2SD2144S
Q206 : DTC124EK
Q207, 221 : DTA124EK
Q220 : 2SC2412K
Q222, 223 : 2SA1037K
D201 : FC54M
D202, 205-207 : TSS254
D210 : ERA83-006
L201, 202, 204, 205 : LAU010K
L203 : LAU220J
HEPB ASSEMBLY CN204
(→P17)
R OUT
GND
L OUT
IC211 : HEADPHONE AMP
MIRR
TTL → I²L
I²L→TTL
ASY
IC802 CXA1372S
IC802 : FTS CONTROL IC
MDP
(→P27)
FCS EQ
TRK EQ
BPF
FOCS GAIN
F IN
F ERR
Q914 : CHARACTERISTIC SWITCHING for ONE TRACK JUMP
Q917, Q918 : SLIDER DRIVE SIGNAL LIMITER (LDD)
RF (EFM)
Q805 : RF BUFFER
Q803 : RF AMP
Q804 : RF CORRECTION
Q807 : EFM BUFFER
IC807 LA6510L
IC807 (1/2) : SPDL DRIVE
RF (VIDEO)
(→P25)
VREF
(→P27)
IC205 (2/2) : VERF GENERATOR
+12V (1700)
+5V (700)
-12V (1700)
-5V (700)
IC202 : NJM78L08A
IC210 : NJM79L08A
IC202 : +8V REGULATOR
IC210 : -6V REGULATOR
: RF Signal Line
: Audio Signal Line
(T) : TRKG Servo Loop Line
: FOCS Servo Loop Line

WAVEFORMS AND VOLTAGES
VIDEO AND TBC SECTION

Note: (No.) in the table correspond to the pin number.



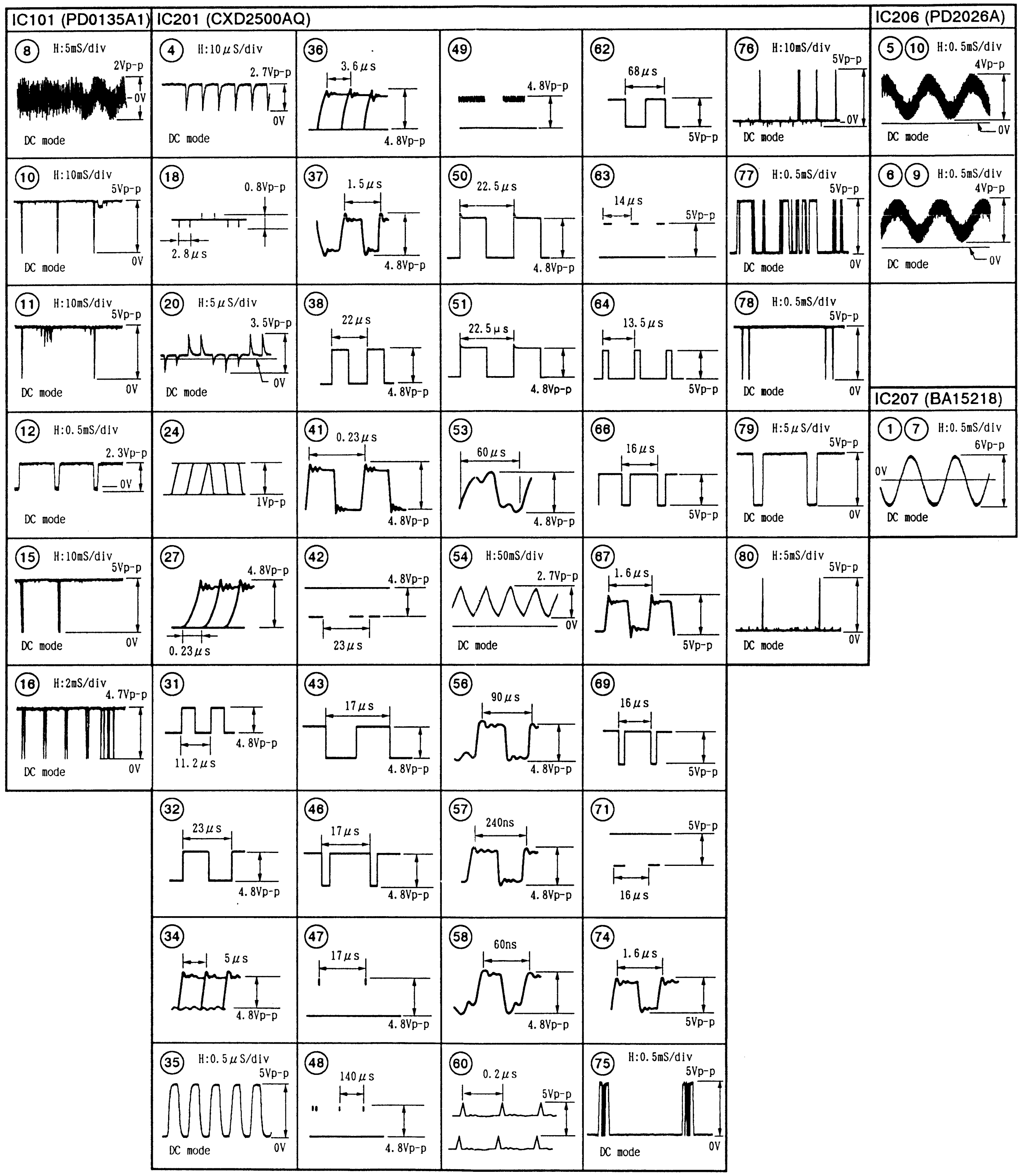
Note : Waveforms and voltages are at the PLAY mode.

IC405 (M50554-132SP)

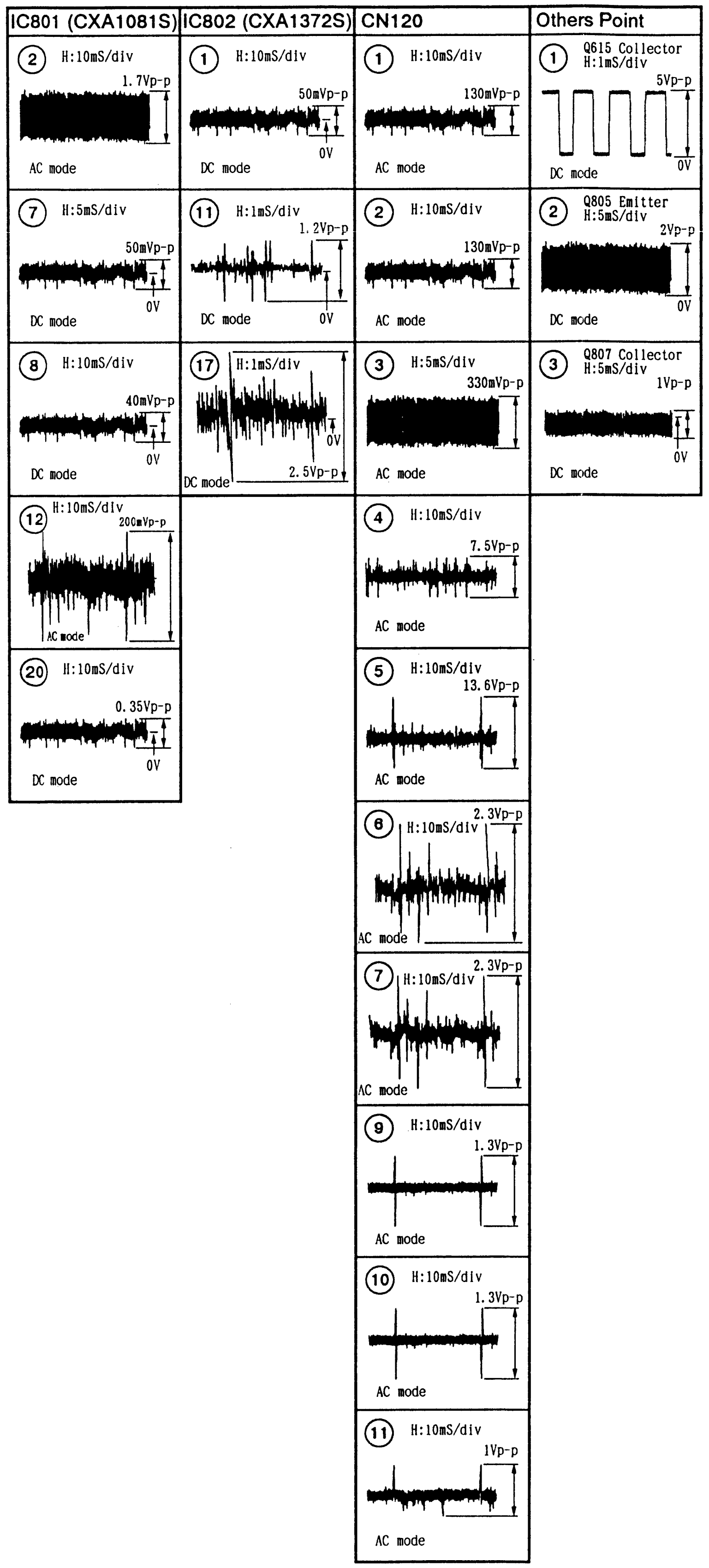
Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	0	9	–	17	0.8	25	–
2	5	10	5	18	–	26	–
3	5	11	0	19	0	27	–
4	2.4	12	1.1	20	0	28	2.3
5	2.4	13	1.1	21	–	29	2.3
6	0	14	–	22	–	30	–
7	5	15	1.8	23	–	31	4.8
8	0.4	16	0.6	24	–	32	–

FTS AND AUDIO SECTION

Note: (No.) in the table correspond to the pin number.



Note: (No.) in the table correspond to the pin number.

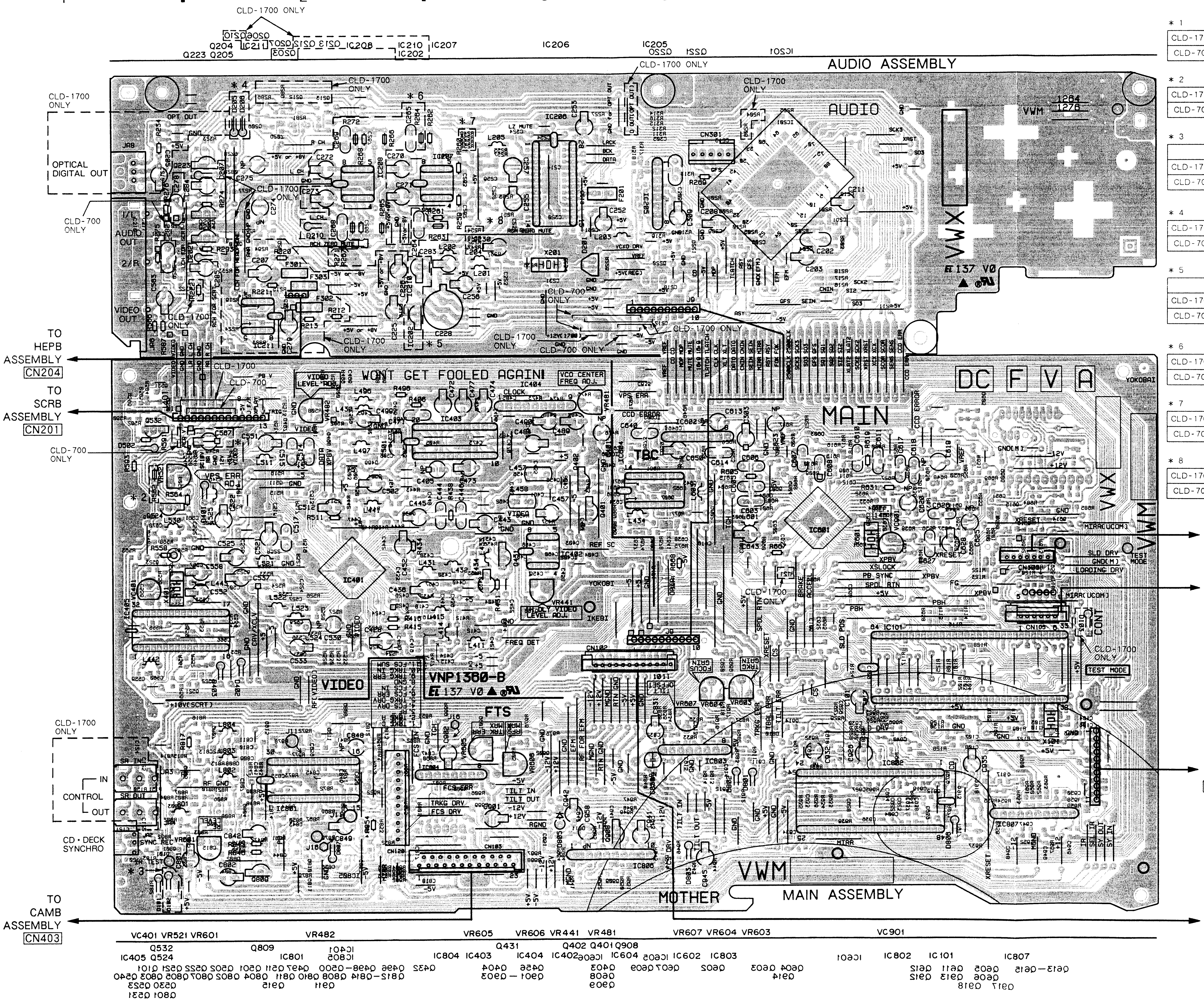


Note : Waveforms and voltages are at the PLAY mode.

IC201 (CXD2500AQ)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	4.8	17	0	33	4.8	49	*	65	0
2	0	18	*	34	*	50	*	66	*
3	0	19	2.4	35	*	51	*	67	*
4	*	20	*	36	*	52	0	68	0
5	0	21	0	37	*	53	*	69	*
6	4.8	22	2.3	38	*	54	*	70	5
7	—	23	4.8	39	0	55	0	71	*
8	4.8	24	*	40	4.8	56	*	72	5
9	0	25	0	41	*	57	*	73	5
10	0	26	0	42	*	58	*	74	*
11	0	27	*	43	*	59	5	75	*
12	0	28	0	44	0	60	*	76	*
13	0	29	0	45	4.8	61	5	77	*
14	0	30	0	46	*	62	*	78	*
15	0	31	*	47	*	63	*	79	*
16	4.8	32	*	48	*	64	*	80	*

* : Refer to waveform


1
2
3
4
5
6
A
B
C
D
CLD-1700 ONLY
Q204 IC211 Q203 Q213 Q212 IC208 IC210 IC207
Q223 Q205 IC202
IC206
IC205
IC201
AUDIO ASSEMBLY
AUDIO
CLD-1700 ONLY
OPTICAL DIGITAL OUT
CLD-700 ONLY
AUDIO OUT
VIDEO OUT
TO HEPB ASSEMBLY CN204
TO SCRB ASSEMBLY CN201
CLD-700 ONLY
WON'T GET FOOLED AGAIN!
VCO CENTER FREQ ADJ.
MAIN
DC F V A
TBC
VIDEO
VNP1300-B
FTS
VWX
VWM
TO CAMB ASSEMBLY J46
TO LOMB ASSEMBLY J55
TO FLKY ASSEMBLY CN201
CLD-1700 ONLY
CONTROL
IN
OUT
CD • DECK SYNCHRO
TEST MODE
MOTHER
MAIN ASSEMBLY
TO CAMB ASSEMBLY CN403
TO SYPS ASSEMBLY J32
VC401 VR521 VR601
VR482
VR605 VR606 VR441 VR481
VR607 VR604 VR603
VC901
Q532
IC405 Q524
Q809
IC801
IC401
IC805
Q431
IC804 IC403
IC404 IC402
Q402 Q401 Q908
IC604
IC602 IC803
IC802 IC101
IC807

* 1

CLD-1700	C567
CLD-700	JUMPER

* 2

CLD-1700	JUMPER
CLD-700	R562

* 3

	D102	JUMPER
CLD-1700	USED	OPEN
CLD-700	OPEN	USED

* 4

CLD-1700	D205, 206
CLD-700	JUMPER

* 5

	IC202, 210	JUMPER
CLD-1700	USED	OPEN
CLD-700	OPEN	USED

* 6

CLD-1700	R263-266, 271, 272	OTHER PARTS
CLD-700	JUMPER	OPEN

* 7

CLD-1700	R256, 258	OPEN
CLD-700	OPEN	R249, 250

* 8

CLD-1700	R252, 254	OPEN
CLD-700	OPEN	R247, 248

This P.C.B. connection diagram is viewed from the foil side.

*1

CLD-1700	C567
CLD-700	JUMPER

*2

CLD-1700	JUMPER
CLD-700	R562

*3

	D102	JUMPER
CLD-1700	USED	OPEN
CLD-700	OPEN	USED

*4

CLD-1700	D205, 206
CLD-700	JUMPER

*5

	IC202, 210	JUMPER
CLD-1700	USED	OPEN
CLD-700	OPEN	USED

*6

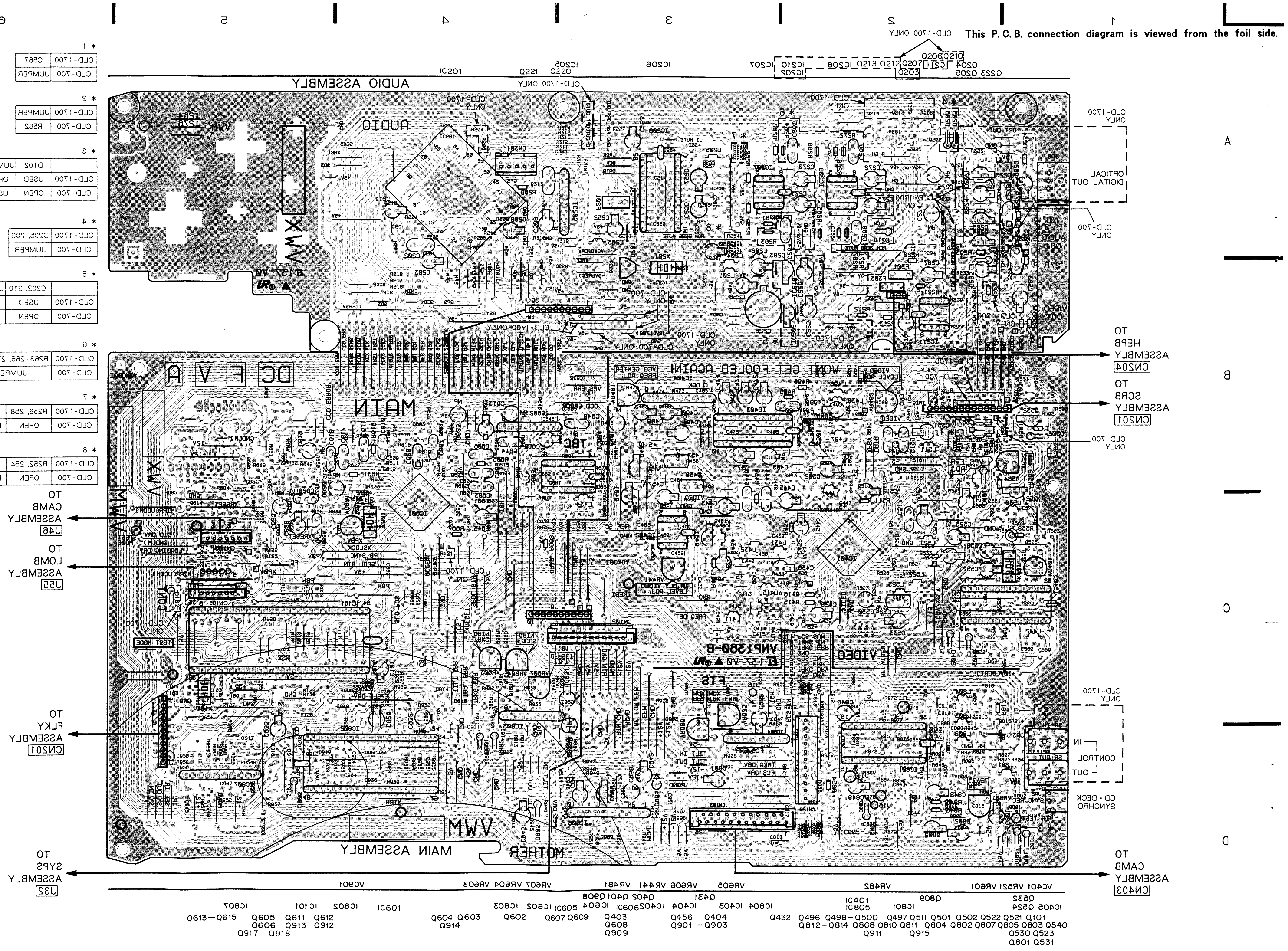
CLD-1700	R263-266, 271, 272	OTHER PARTS
CLD-700	JUMPER	OPEN

*7

CLD-1700	R256, 258	OPEN
CLD-700	OPEN	R249, 250

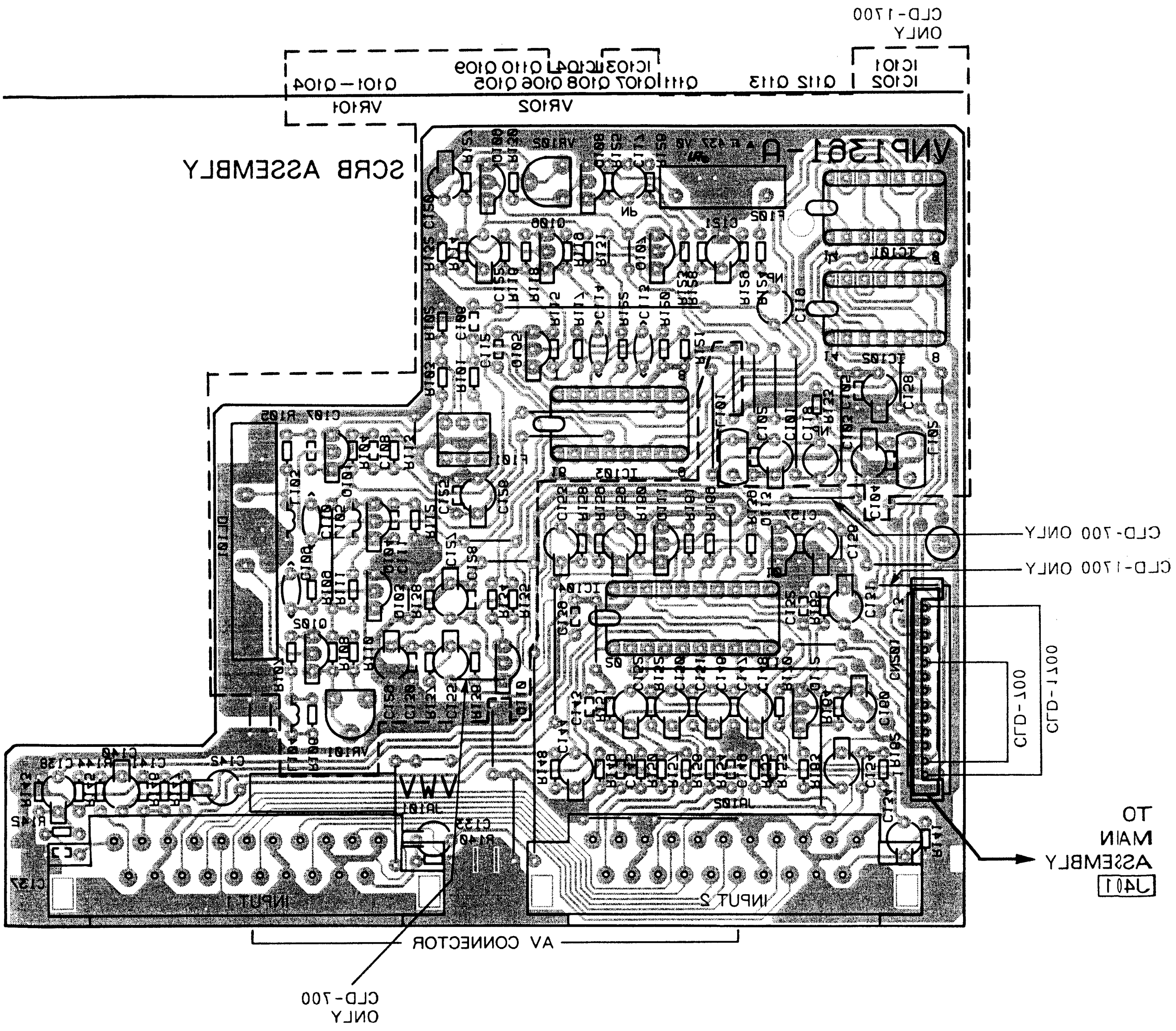
*8

CLD-1700	R252, 254	OPEN
CLD-700	OPEN	R247, 248


6
5
4
3
2
1
A
B
C
D
CLD-1700 ONLY
IC201
Q221 Q220 IC205
IC206
IC207 IC210 IC202 IC208 Q213 Q212 Q207 Q206 Q215 Q204 Q211 Q205 Q223 Q205
AUDIO ASSEMBLY
AUDIO
MAIN
VIDEO
TBC
FTS
MOTHER
VWM
VNP1360-B
WONT GET FOOLED AGAIN
OPTICAL DIGITAL OUT
AUDIO OUT
VIDEO OUT
CONTROL IN OUT
CD・DECK SYNCHRO
TO HEPB ASSEMBLY CN204
TO SCRB ASSEMBLY CN201
TO CAMB ASSEMBLY J46
TO LOMB ASSEMBLY J55
TO FLKY ASSEMBLY CN201
TO SYPS ASSEMBLY J32
TO CAMB ASSEMBLY CN403
CLD-700 ONLY
MAIN ASSEMBLY
VC901
VR607 VR604 VR603
VR481 VR441 VR606
VR605
VR482
VR601 VR521 VR601 VC401
IC807 IC101 IC802 IC601
Q613–Q615 Q605 Q611 Q612 Q606 Q913 Q912 Q917 Q918
Q604 Q603 Q914
Q602 IC803 IC602 IC605 Q607 Q609
IC604 IC606 IC402 Q402 Q401 Q608 Q403 Q608 Q909
Q431 IC404 IC403 Q456 Q404 Q901–Q903
IC804 Q432
IC401 IC805 IC801 Q809
Q496 Q498–Q500 Q497 Q511 Q501 Q812–Q814 Q808 Q810 Q811 Q911 Q915
Q502 Q522 Q521 Q101 Q804 Q802 Q807 Q805 Q803 Q540
IC405 Q524 Q532 Q530 Q523 Q801 Q531

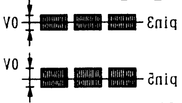
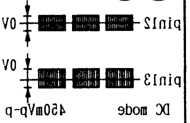
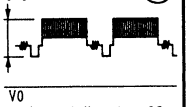
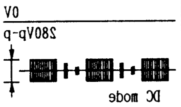
3.4 SCRB ASSEMBLY

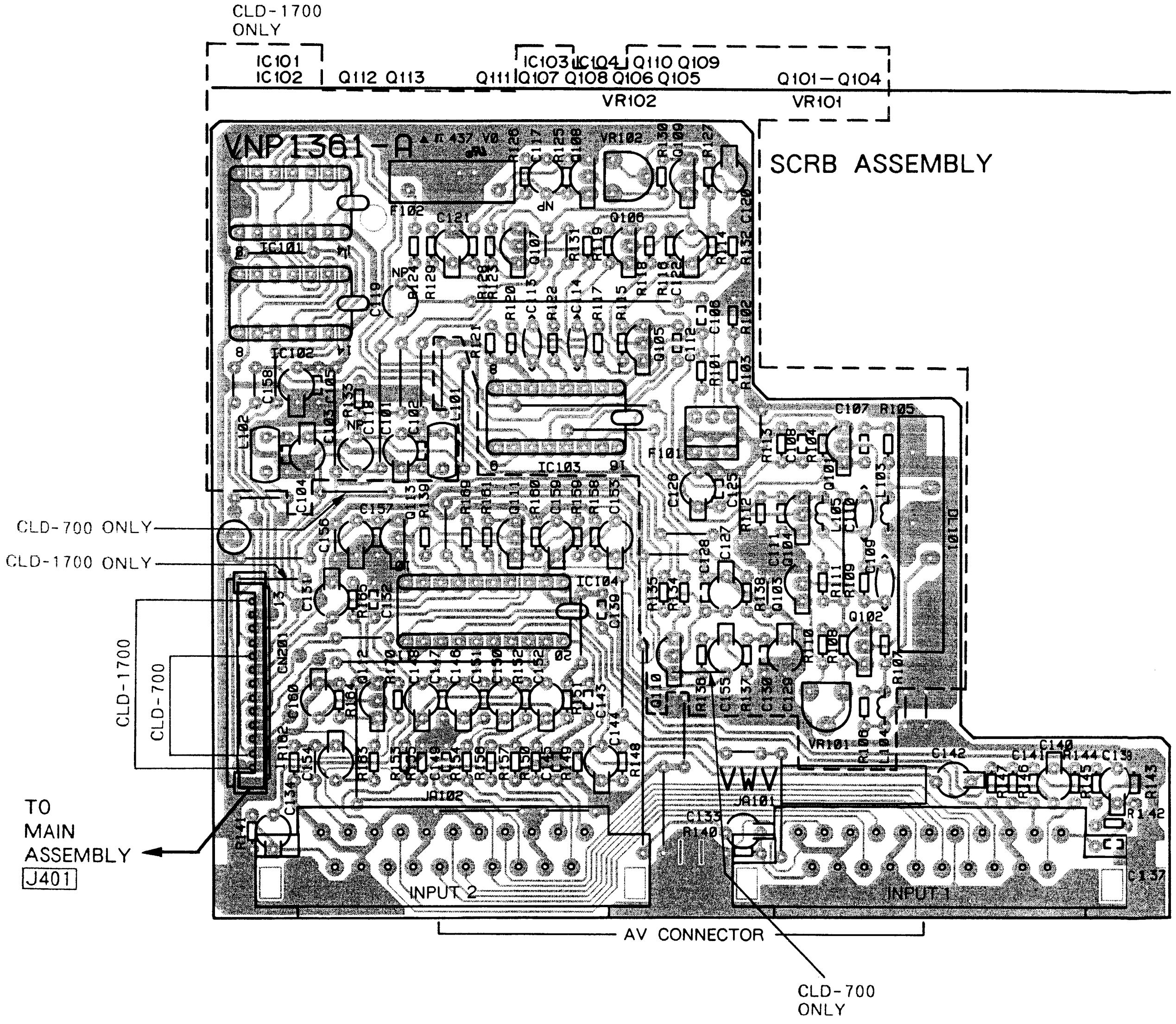
This P. C. B. connection diagram is viewed from the foil side.


CLD-1700 ONLY
IC101
IC102
Q112 Q113
Q111 Q107 Q108 Q106 Q105
IC103 IC104 Q110 Q109
Q101 – Q104
VR102
VR101
SCRB ASSEMBLY
VNP1361-A
CLD-700 ONLY
CLD-1700 ONLY
CLD-1700
CLD-700
TO MAIN ASSEMBLY J401
INPUT 1
INPUT 2
AV CONNECTOR
CLD-700 ONLY

SCRB ASSEMBLY

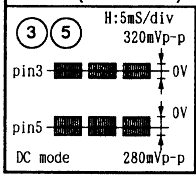
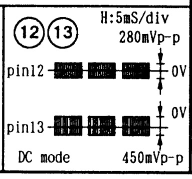
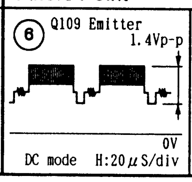
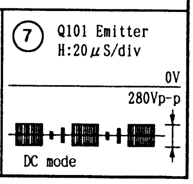
Note : (No.) in the table correspond to the pin number.

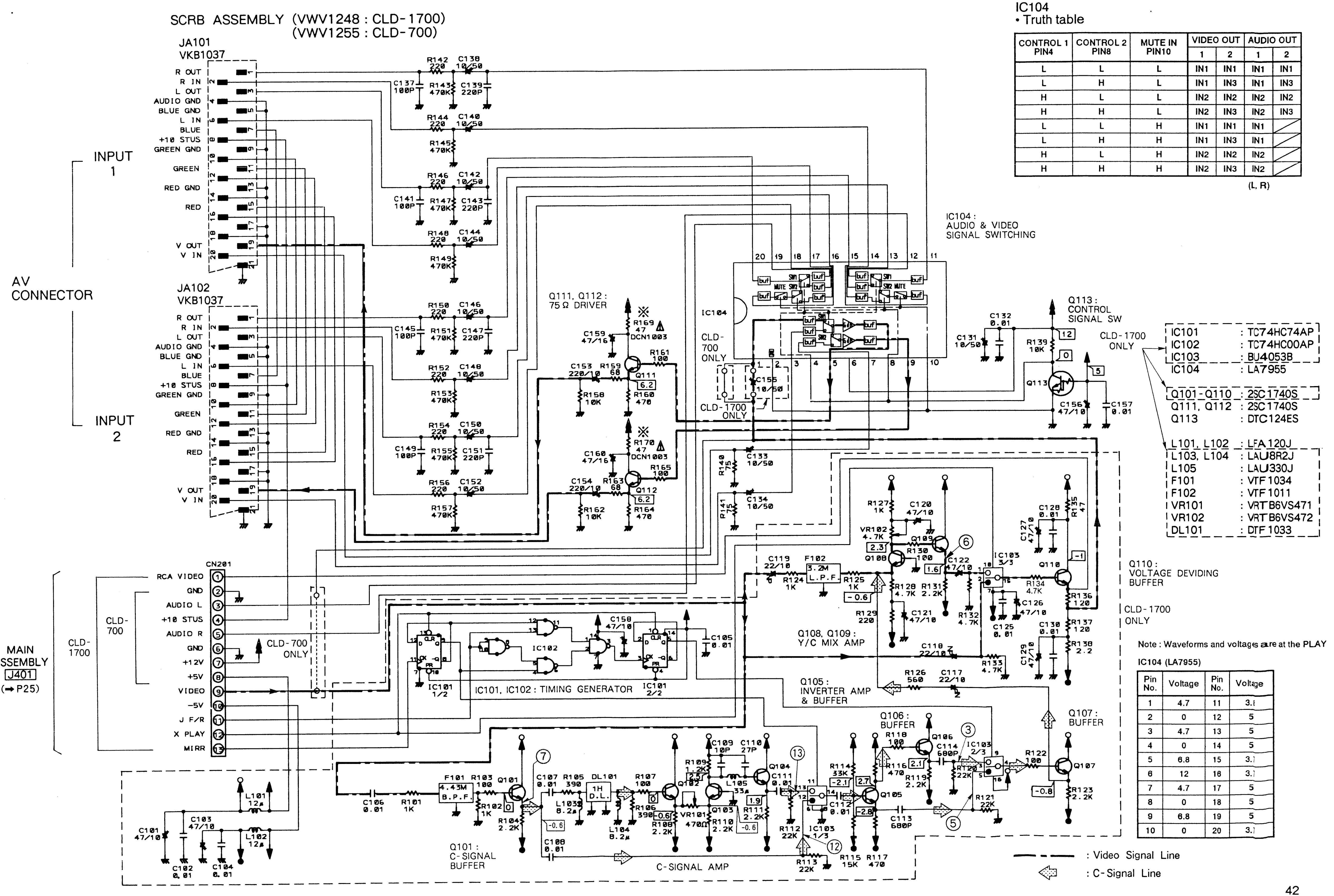
IC103 (BU4053B)		Others Point	
③⑤ H:5mS/div 320mVp-p pin3 0V pin5 0V  DC mode 280mVp-p	⑫⑬ H:5mS/div 280mVp-p pin12 0V pin13 0V  DC mode 450mVp-p	⑧ Q109 Emitter 1.4Vp-p  0V DC mode H:20μS/div	⑦ Q101 Emitter H:20μS/div 0V 280Vp-p  DC mode


CLD-1700
ONLY
IC101
IC102
Q112 Q113
Q111
IC103
IC104
Q107 Q108 Q106 Q105
Q110 Q109
Q101–Q104
VR102
VR101
SCRB ASSEMBLY
VNP1361-A
IC101
IC102
IC103
IC104
F101
F102
CN201
CLD-700 ONLY
CLD-1700 ONLY
CLD-1700
CLD-700
TO
MAIN
ASSEMBLY
J401
JA102
JA101
INPUT 2
INPUT 1
AV CONNECTOR
CLD-700
ONLY

SCRB ASSEMBLY

Note : (No.) in the table correspond to the pin number.

IC103 (BU4053B)		Others Point	
 ③⑤ H:5mS/div 320mVp-p pin3 0V pin5 0V DC mode 280mVp-p	 ⑫⑬ H:5mS/div 280mVp-p pin12 0V pin13 0V DC mode 450mVp-p	 ⑥ Q109 Emitter 1.4Vp-p 0V DC mode H:20μS/div	 ⑦ Q101 Emitter H:20μS/div 0V 280Vp-p DC mode


SCRB ASSEMBLY (VWV1248 : CLD-1700)
(VWV1255 : CLD-700)
JA101
VKB1037
JA102
VKB1037
R OUT
R IN
L OUT
AUDIO GND
BLUE GND
L IN
BLUE
+10 STUS
GREEN GND
GREEN
RED GND
RED
V OUT
V IN
INPUT 1
INPUT 2
AV CONNECTOR
MAIN ASSEMBLY
J401
(→P25)
CN201
RCA VIDEO
GND
AUDIO L
+10 STUS
AUDIO R
GND
+12V
+5V
VIDEO
-5V
J F/R
X PLAY
MIRR
CLD-700
CLD-1700
CLD-700 ONLY
CLD-1700 ONLY
Q111, Q112 :
75 Ω DRIVER
Q113 :
CONTROL
SIGNAL SW
IC104 :
AUDIO & VIDEO
SIGNAL SWITCHING
IC104
IC101, IC102 : TIMING GENERATOR
IC101 1/2
IC101 2/2
IC102
IC103 1/3
IC103 2/3
IC103 3/3
Q101 :
C-SIGNAL
BUFFER
C-SIGNAL AMP
Q105 :
INVERTER AMP
& BUFFER
Q106 :
BUFFER
Q107 :
BUFFER
Q108, Q109 :
Y/C MIX AMP
Q110 :
VOLTAGE DEVIDING
BUFFER
F101 4.43M B.P.F
F102 3.2M L.P.F
DL101 1H D.L.
VR101 470Ω
VR102 4.7K
R169 47 DCN1003
R170 47 DCN1003
※

IC101 : TC74HC74AP
IC102 : TC74HC00AP
IC103 : BU4053B
IC104 : LA7955
Q101 - Q110 : 2SC1740S
Q111, Q112 : 2SC1740S
Q113 : DTC124ES
L101, L102 : LFA120J
L103, L104 : LAU8R2J
L105 : LAU330J
F101 : VTF1034
F102 : VTF1011
VR101 : VRTB6VS471
VR102 : VRTB6VS472
DL101 : DTF1033

IC104
• Truth table

CONTROL 1 PIN4	CONTROL 2 PIN8	MUTE IN PIN10	VIDEO OUT		AUDIO OUT	
			1	2	1	2
L	L	L	IN1	IN1	IN1	IN1
L	H	L	IN1	IN3	IN1	IN3
H	L	L	IN2	IN2	IN2	IN2
H	H	L	IN2	IN3	IN2	IN3
L	L	H	IN1	IN1	IN1	
L	H	H	IN1	IN3	IN1	
H	L	H	IN2	IN2	IN2	
H	H	H	IN2	IN3	IN2	

(L, R)

Note : Waveforms and voltages are at the PLAY

IC104 (LA7955)

Pin No.	Voltage	Pin No.	Voltage
1	4.7	11	3.
2	0	12	5
3	4.7	13	5
4	0	14	5
5	6.8	15	3.
6	12	16	3.
7	4.7	17	5
8	0	18	5
9	6.8	19	5
10	0	20	3.

— - — : Video Signal Line
⇦ : C-Signal Line

4. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits(any digit apart from 0), such as 560 ohm and 47k ohm(tolerance is shown by J=5%, and K=10%).

560 Ω → 56×10^1 → 561 ………………………… RD1/8PM$\boxed{5}\boxed{6}\boxed{1}$J
47k Ω → 47×10^3 → 473 ………………………… RD1/4PS$\boxed{4}\boxed{7}\boxed{3}$J
0.5 Ω → 0R5 ………………………… RN2H$\boxed{0}\boxed{R}\boxed{5}$K
1 Ω → 010 ………………………… RS1P$\boxed{0}\boxed{1}\boxed{0}$K

Ex.2 When there are 3 effective digits(such as in high precision metal film resistors).

5.62k Ω → 562×10^1 → 5621 ………………………… RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
◉		MOTHER ASSEMBLY	VWM1276
NSP		├─ MAIN ASSEMBLY	VWX1123
NSP		└─ AUDIO ASSEMBLY	VWX1124
◉		FLKB ASSEMBLY	VWM1278
NSP		├─ PSWB ASSEMBLY	VWG1315
NSP		├─ FLKY ASSEMBLY	VWG1336
NSP		└─ HEPB ASSEMBLY	VWV1254
◉		SYPS ASSEMBLY	VWR1146
◉		SCRB ASSEMBLY	VWV1248
◉		MACB ASSEMBLY	VWM1250
NSP		├─ FG ASSEMBLY	VWG1304
NSP		├─ PKSB ASSEMBLY	VWG1305
NSP		├─ CAMB ASSEMBLY	VWG1306
NSP		├─ LOSB ASSEMBLY	VWG1307
NSP		└─ LOMB ASSEMBLY	VWG1308

FG ASSEMBLY

SEMICONDUCTOR

Mark	No.	Description	Part No.
	D1		GP1S51

PKSB ASSEMBLY

SWITCHES

Mark	No.	Description	Part No.
	S4, 5	PUSH SWITCH	DSG1015

LOSB ASSEMBLY

SWITCHES

Mark	No.	Description	Part No.
	S1-3	PUSH SWITCH	DSG1015

CAMB ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	Q10	TRANSISTOR	2SC1740S

RESISTORS

Mark	No.	Description	Part No.
	R10	CARBON FILM RESISTOR	RD1/6PM182J
	R11	CARBON FILM RESISTOR	RD1/6PM470J

OTHERS

Mark	No.	Description	Part No.
	CN401	CONNECTOR (23P)	VKN1073
	CN403	CONNECTOR (23P)	HLEM23R-1

LOMB ASSEMBLY

CAPACITOR

Mark	No.	Description	Part No.
	C1	CERAMIC CAPACITOR	CGCYX473M25

PSWB ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	Q204	TRANSISTOR	DTC124ES
	D211	LED	SLH34VCF04

SWITCH

Mark	No.	Description	Part No.
	S224	SWITCH	RSG1030

CAPACITOR

Mark	No.	Description	Part No.
	C210	ELECT. CAPACITOR	CEAS100M16

RESISTOR

Mark	No.	Description	Part No.
	R227	CARBON FILM RESISTOR	RD1/6PM151J

OTHERS

Mark	No.	Description	Part No.
		REMOTE CONTROL SENSOR UNIT	GP1U58X

FLKY ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC201	MODE CONTROL MCU	PD3214A
	IC202	RESET IC	PST529C
	Q201	TRANSISTOR	DTC124ES
	Q202	TRANSISTOR	DTC114EL
	Q203	TRANSISTOR	DTA144EL
	D201, 203	DIODE	1SS252
	D204-206	DIODE	1SS252
	D210	LED	PG3361X

SWITCHES

Mark	No.	Description	Part No.
	S201-223	SWITCH	RSG1030
	S225	ROTARY ENCODER	VSD1008

CAPACITORS

Mark	No.	Description	Part No.
	C201	ELECTR. CAPACITOR	CEAL101M6R3
	C202	CERAMIC CAPACITOR	CKPUYF223Z25
	C204	ELECTR. CAPACITOR	CEAL100M16
	C205	CERAMIC CAPACITOR	CKPUYF103Z25
	C206	ELECTR. CAPACITOR	CEAL2R2M50
	C211	CERAMIC CAPACITOR	CKPUYF223Z25

RESISTORS

Mark	No.	Description	Part No.
	ALL RESISTORS		RD1/6PM□□□J

OTHERS

Mark	No.	Description	Part No.
		FL SPACER	VEB1125
		LED HOLDER	VNL1522
	V201	FL TUBE	VAW1026
	X201	CERAMIC RESONATOR	EFOGC8004T4

SYPS ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC1	REGULATOR IC	NJM2930L05
⚠	IC2	LINEAR IC	NJM4558D
⚠	IC201, 202	IC PROTECTOR	ICP-N20
⚠	IC210	IC PROTECTOR	ICP-N20
⚠	IC211	IC PROTECTOR	ICP-N15
⚠	IC41	REGULATOR IC	NJM78M12FA
⚠	Q1, 2	TRANSISTOR	2SB1185
	Q21	TRANSISTOR	2SC1740S
	Q22, 23	TRANSISTOR	2SA933S
	Q24	TRANSISTOR	2SC1740S
⚠	Q25	TRANSISTOR	2SB1134
⚠	Q26	TRANSISTOR	2SD1667
⚠	Q27	TRANSISTOR	2SB1134
⚠	Q28	TRANSISTOR	2SD1667
⚠	Q3	TRANSISTOR	2SD1762
	Q4	TRANSISTOR	2SC1740S
	Q5	TRANSISTOR	2SA933S
⚠	D1		S2VB20-F1
⚠	D2	DIODE	1SR35-100AVL
⚠	D21, 22	DIODE	1SS254
⚠	D23	DIODE	10ELS2
⚠	D24, 25	DIODE	1SR35-100AVL
⚠	D26	DIODE	10ELS2
⚠	D3, 31	DIODE	1SR35-100AVL
	D32, 33	SCHOTTKY DIODE	ERA83-006
⚠	D7	ZENER DIODE	MTZJ11B

COIL

Mark	No.	Description	Part No.
⚠	L1	SPDL CHORK COIL	VTL1043

CAPACITORS

Mark	No.	Description	Part No.
⚠	C1	ELECTR. CAPACITOR (6800/16)	VCH1053
	C10	ELECT. CAPACITOR	CEAS101M50
	C11, 12	CERAMIC CAPACITOR	CKPUYF103Z25
	C13	ELECT. CAPACITOR	CEAS471M16
	C14	CERAMIC CAPACITOR	CGCYX473M25
⚠	C2	ELECTR. CAPACITOR (6800/16)	VCH1053
	C21, 22	MYLAR FILM CAPACITOR	CQMA272J50
	C23, 24	CERAMIC CAPACITOR	CGCYX473M25
	C25, 26	ELECT. CAPACITOR	CEAS2R2M50
	C27, 28	MYLAR FILM CAPACITOR	CQMA223J50
	C29	ELECT. CAPACITOR	CEAS101M50
	C3	ELECT. CAPACITOR	CEAS470M10
	C31	ELECT. CAPACITOR	CEAS471M35
	C32	ELECT. CAPACITOR	CEAS220M25
	C4, 5	ELECT. CAPACITOR	CEAS470M10
⚠	C52	CAPACITOR (CERAMIC)(0.01)	VCG-048
	C6	ELECT. CAPACITOR	CEAS470M10
⚠	C7-9	CERAMIC CAPACITOR	CKPUYF223Z25

RESISTORS

Mark	No.	Description	Part No.
⚠	R23-26	CARBON FILM RESISTOR	RD1/2VM221J
⚠	R27-30	RESISTOR(27Ω)	DCN1003
	R41	RESISTOR(4.7Ω)	DCN1001
	OTHER RESISTORS		RD1/6PM□□□J

SCRB ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC101	LOGIC IC	TC74HC74AP
	IC102	LOGIC IC	TC74HC00AP
	IC103	LOGIC IC	BU4053B
	IC104	IC	LA7955
	Q101-112	TRANSISTOR	2SC1740S
	Q113	TRANSISTOR	DTC124ES

COILS AND FILTERS

Mark	No.	Description	Part No.
	L101, 102	RADIAL INDUCTOR	LFA120K
	L103, 104	AXIAL INDUCTOR	LAU8R2J
	L105	AXIAL INDUCTOR	LAU330J
	F101	FILTER(4.43MHz)	VTF1034
	F102	FILTER(3.2MHz)	VTF1011

CAPACITORS

Mark	No.	Description	Part No.
	C101	ELECT. CAPACITOR	CEAS470M10
	C102	CERAMIC CAPACITOR	CKPUYY103N16
	C103	ELECT. CAPACITOR	CEAS470M10
	C104-108	CERAMIC CAPACITOR	CKPUYY103N16
	C109	CERAMIC CAPACITOR	CCCCH100D50

Mark	No.	Description	Part No.
	C110	CERAMIC CAPACITOR	CCCCH270J50
	C111, 112	CERAMIC CAPACITOR	CKPUYY103N16
	C113, 114	CERAMIC CAPACITOR	CKCYB681K50
	C117-119	ELECT. CAPACITOR	CEANP220M10
	C120-122	ELECT. CAPACITOR	CEAS470M10
	C125	CERAMIC CAPACITOR	CKPUYY103N16
	C126, 127	ELECT. CAPACITOR	CEAS470M10
	C128	CERAMIC CAPACITOR	CKPUYY103N16
	C129	ELECT. CAPACITOR	CEAS470M10
	C130	CERAMIC CAPACITOR	CKPUYY103N16
	C131	ELECT. CAPACITOR	CEAS100M50
	C132	CERAMIC CAPACITOR	CKPUYY103N16
	C133, 134	ELECT. CAPACITOR	CEAS100M50
	C137	AXIAL CAPACITOR	CKPUYB101K50
	C138	ELECT. CAPACITOR	CEAS100M50
	C139	AXIAL CAPACITOR	CKPUYB221K50
	C140	ELECT. CAPACITOR	CEAS100M50
	C141	AXIAL CAPACITOR	CKPUYB101K50
	C142	ELECT. CAPACITOR	CEAS100M50
	C143	AXIAL CAPACITOR	CKPUYB221K50
	C144	ELECT. CAPACITOR	CEAS100M50
	C145	AXIAL CAPACITOR	CKPUYB101K50
	C146	ELECT. CAPACITOR	CEAS100M50
	C147	AXIAL CAPACITOR	CKPUYB221K50
	C148	ELECT. CAPACITOR	CEAS100M50
	C149	AXIAL CAPACITOR	CKPUYB101K50
	C150	ELECT. CAPACITOR	CEAS100M50
	C151	AXIAL CAPACITOR	CKPUYB221K50
	C152	ELECT. CAPACITOR	CEAS100M50
	C153, 154	ELECT. CAPACITOR	CEAS221M10
	C155	ELECT. CAPACITOR	CEAS100M50
	C156	ELECT. CAPACITOR	CEAS470M10
	C157	CERAMIC CAPACITOR	CKPUYY103N16
	C158	ELECT. CAPACITOR	CEAS470M10
	C159, 160	ELECT. CAPACITOR	CEAS470M16

RESISTORS

Mark	No.	Description	Part No.
	VR101	SEMI-FIXED VR (470Ω)	VRTB6VS471
	VR102	SEMI-FIXED VR (4.7kΩ)	VRTB6VS472
⚠	R169, 170	RESISTOR (27Ω)	DCN1003
		OTHER RESISTORS	RD1/6PM□□□J

OTHERS

Mark	No.	Description	Part No.
	DL101	DELAY LINE	DTF1033
	JA101, 102	CONNECTOR	VKB1037

HEPB ASSEMBLY

FILTERS

Mark	No.	Description	Part No.
	F201-203	COIL	VTH1016

CAPACITORS

Mark	No.	Description	Part No.
	C221	CERAMIC CAPACITOR	CGCYF473Z25
	C222, 223	AXIAL CAPACITOR	CKPUYB101K50

RESISTOR

Mark	No.	Description	Part No.
	VR201	VR	VCS1015

OTHERS

Mark	No.	Description	Part No.
	JA201	JACK (PHONES)	RKN1002

MAIN ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC101	MECHANISM CONT. MCU	PD0135A1
	IC401	VIDEO IC	PA5013A
	IC402	CDD DELAY LINE	PM0001
	IC403	IC	CXL1009P
	IC404	IC	PA0017
	IC405	CHARACTER IC	M50554-132SP
	IC601	TBC IC	PM3002
	IC602	IC	BA15218N
	IC604	LOGIC IC	TC74HC86AP
	IC605	LOGIC IC	TC4S66F
	IC606	LOGIC IC	TC7SU04F
	IC801	PRE AMP IC	CXA1081S
	IC802	SERVO IC	CXA1372S
	IC803	OP-AMP IC	NJM072L
	IC804	IC	BA15218N
	IC805	COMPARATOR	BA10393F
	IC806	OP AMP	TA8464K
	IC807	POWER OP AMP	LA6510L
	Q101	DIGITAL TRANSISTOR	DTC124EK
	Q401	TRANSISTOR	2SB1237X
	Q402	TRANSISTOR	2SD1858X
	Q403	DIGITAL TRANSISTOR	DTA124EK
	Q404	CHIP TRANSISTOR	2SC2412K
	Q431	TRANSISTOR	2SC1740S
	Q432	CHIP TRANSISTOR	2SC2412K
	Q456, 496	CHIP TRANSISTOR	2SA1037K
	Q497-501	CHIP TRANSISTOR	2SC2412K
	Q502, 511	CHIP TRANSISTOR	2SA1037K
	Q521	DIGITAL TRANSISTOR	DTA124EK
	Q522	DIGITAL TRANSISTOR	DTC124EK
	Q523	CHIP TRANSISTOR	2SA1037K
	Q524	TRANSISTOR	2SC1740S
	Q530, 531	DIGITAL TRANSISTOR	DTC124EK
	Q532	TRANSISTOR	2SA933S
	Q540	CHIP TRANSISTOR	2SA1037K
	Q601-605	CHIP TRANSISTOR	2SC2412K
	Q606	DIGITAL TRANSISTOR	DTA124EK
	Q607	CHIP TRANSISTOR	2SA1037K
	Q608, 609	CHIP TRANSISTOR	2SC2412K
	Q611	CHIP TRANSISTOR	2SA1037K
	Q612	DIGITAL TRANSISTOR	DTC124EK
	Q613, 614	CHIP TRANSISTOR	2SA1037K
	Q615	DIGITAL TRANSISTOR	DTC124EK
	Q801	CHIP TRANSISTOR	2SC2412K
	Q802	CHIP TRANSISTOR	2SA1037K
	Q803-805	CHIP TRANSISTOR	2SC2412K
	Q807	CHIP TRANSISTOR	2SC2412K
	Q808	DIGITAL TRANSISTOR	DTA124EK
	Q809	TRANSISTOR	2SA1399
	Q810	DIGITAL TRANSISTOR	DTA124EK

Mark	No.	Description	Part No.
	Q811	CHIP TRANSISTOR	2SC2412K
	Q812	CHIP TRANSISTOR	2SA1037K
	Q813	CHIP TRANSISTOR	2SC2412K
	Q814	DIGITAL TRANSISTOR	DTA124EK
	Q901, 902	DIGITAL TRANSISTOR	DTC124EK
	Q903	DIGITAL TRANSISTOR	DTA124EK
	Q908	N-FET	2SK184
	Q909	CHIP TRANSISTOR	2SA1037K
	Q911, 912	DIGITAL TRANSISTOR	DTC124EK
	Q913	DIGITAL TRANSISTOR	DTA124EK
	Q914	DIGITAL TRANSISTOR	DTC124EK
	Q915	CHIP TRANSISTOR	2SC2412K
	Q917	CHIP TRANSISTOR	2SA1037K
	Q918	CHIP TRANSISTOR	2SC2412K
	D101-103	DIODE	1SS254
	D401-403	DIODE	1SS254
	D502	DIODE	1SS254
	D603	DIODE	DA204K
	D801-803	DIODE	1SS254
	D805	DIODE	1SR35-100AVL
	D806, 807	DIODE	1SS254
	D810, 811	DIODE	DA204K

COILS

Mark	No.	Description	Part No.
	L411	AXIAL INDUCTOR	LAU680J
	L414, 415	AXIAL INDUCTOR	LAU120J
	L430	AXIAL INDUCTOR	LAU150J
	L431	AXIAL INDUCTOR	LAU680J
	L432	AXIAL INDUCTOR	LAU430J
	L433	AXIAL INDUCTOR	LAU470J
	L434	AXIAL INDUCTOR	LAU220J
	L441	AXIAL INDUCTOR	LAU270J
	L442	AXIAL INDUCTOR	LAU390J
	L443	AXIAL INDUCTOR	LAU120J
	L457	RADIAL INDUCTOR	LFA561J
	L458	RADIAL INDUCTOR	LFA221J
	L496	AXIAL INDUCTOR	LAU220J
	L497	AXIAL INDUCTOR	LAU151J
	L511	AXIAL INDUCTOR	LAU820J
	L521	AXIAL INDUCTOR	LAU120J
	L522	AXIAL INDUCTOR	LAU560J
	L523	AXIAL INDUCTOR	LAU390J
	L524	RADIAL INDUCTOR	LFA561J
	L525	AXIAL INDUCTOR	LAU330J
	L530	AXIAL INDUCTOR	LAU220J
	L601	AXIAL INDUCTOR	LAU470J
	L603	AXIAL INDUCTOR	LAU220J
	L801	AXIAL INDUCTOR	LAU100J
	L802	AXIAL INDUCTOR	LAU151J
	L803	AXIAL INDUCTOR	LAU181J
	L804	AXIAL INDUCTOR	LAU151J

CAPACITORS

Mark	No.	Description	Part No.
	VC401, 901	VARIABLE CAPACITOR(20P)	VCM-008
	C101	ELECT. CAPACITOR	CEAS470M16
	C102	CERAMIC CAPACITOR	CKSQYF473Z25
	C103	CHIP CAPACITOR	CKSQYF103Z50
	C104, 105	CHIP CAPACITOR	CCSQCH330J50
	C106	CHIP CAPACITOR	CKSQYF103Z50
	C107	CERAMIC CAPACITOR	CKSQYF104Z25
	C108, 109	CHIP CAPACITOR	CKSQYF103Z50
	C120-122	CHIP CAPACITOR	CKSQYF103Z50
	C123	CAPACITOR ARRAY (100P×4)	VCG1022
	C124, 125	CHIP CAPACITOR	CCSQCH101J50
	C401	ELECT. CAPACITOR	CEANP2R2M50
	C403, 404	CERAMIC CAPACITOR	CKSQYF104Z25
	C405	ELECT. CAPACITOR	CEANP2R2M50
	C407, 408	CERAMIC CAPACITOR	CKSQYF473Z25
	C411, 412	CHIP CAPACITOR	CCSQCH820J50
	C414	CHIP CAPACITOR	CKSQYF103Z50
	C415	CHIP CAPACITOR	CCSQCH100D50
	C416	CHIP CAPACITOR	CCSQCH330J50
	C417	CHIP CAPACITOR	CCSQCH100D50
	C418	CHIP CAPACITOR	CKSQYF103Z50
	C419	CHIP CAPACITOR	CCSQCH101J50
	C421, 422	CHIP CAPACITOR	CKSQYF103Z50
	C423, 424	CHIP CAPACITOR	CCSQCH180J50
	C425, 426	CHIP CAPACITOR	CKSQYF103Z50
	C427	CERAMIC CAPACITOR	CKSQYF473Z25
	C428	ELECT. CAPACITOR	CEAS470M10
	C429	CERAMIC CAPACITOR	CKSQYF104Z25
	C430	CHIP CAPACITOR	CCSQCH120J50
	C431	CHIP CAPACITOR	CCSQCH050C50
	C433	CHIP CAPACITOR	CCSQCH390J50
	C434	ELECT. CAPACITOR	CEAS101M10
	C435	CERAMIC CAPACITOR	CKSQYF104Z25
	C436	ELECT. CAPACITOR	CEAS010M50
	C437	CHIP CERAMIC C.	CCSQCH220J50
	C438	CHIP CAPACITOR	CCSQCH050C50
	C439, 440	CHIP CERAMIC C.	CCSQCH150J50
	C441	CHIP CAPACITOR	CCSQCH050C50
	C442	CERAMIC CAPACITOR	CKSQYF104Z25
	C443	ELECT. CAPACITOR	CEJANP4R7M16
	C444	MYLAR FILM CAPACITOR	CQMA272J50
	C445	ELECT. CAPACITOR	CEAS101M10
	C446	MYLAR FILM CAPACITOR	CQMA153J50
	C447	CHIP CAPACITOR	CCSQCH680J50
	C448	CERAMIC CAPACITOR	CKSQYF473Z25
	C450	CHIP CAPACITOR	CCSQCH100D50
	C451	CHIP CAPACITOR	CCSQCH270J50
	C452	ELECT. CAPACITOR	CEAS470M10
	C455	CHIP CAPACITOR	CCSQCH470J50
	C456	CHIP CAPACITOR	CCSQCH121J50
	C457	ELECT. CAPACITOR	CEAS101M10
	C458-460	CHIP CAPACITOR	CKSQYF103Z50
	C461	CHIP CAPACITOR	CCSQCH101J50
	C462	CHIP CAPACITOR	CCSQCH330J50
	C463	CHIP CERAMIC C.	CCSQCH271J50
	C466, 467	CERAMIC CAPACITOR	CKSQYF473Z25
	C471	AUDIO FILM CAPACITOR	CFTXA224J50
	C472, 473	ELECT. CAPACITOR	CEAS3R3M50
	C474	ELECT. CAPACITOR	CEAS470M10
	C475, 476	CHIP CAPACITOR	CKSQYF103Z50

Mark	No.	Description	Part No.
	C477	ELECT. CAPACITOR	CEAS3R3M50
	C479-481	CERAMIC CAPACITOR	CKSQYF104Z25
	C483	CERAMIC CAPACITOR	CKSQYF473Z25
	C484	ELECT. CAPACITOR	CEAS470M16
	C485	CHIP CERAMIC C.	CCSQCH180J50
	C486	CHIP CAPACITOR	CKSQYF103Z50
	C487, 488	CERAMIC CAPACITOR	CKSQYF473Z25
	C489, 490	ELECT. CAPACITOR	CEAS101M10
	C495	CHIP CAPACITOR	CCSQCH270J50
	C496	CHIP CAPACITOR	CCSQCH101J50
	C498	CHIP CAPACITOR	CCSQCH820J50
	C499	ELECT. CAPACITOR	CEAS470M16
	C500	CHIP CAPACITOR	CCSQCH100D50
	C501, 502	ELECT. CAPACITOR	CEAS470M10
	C503	CERAMIC CAPACITOR	CKSQYF104Z25
	C504	CERAMIC CAPACITOR	CKSQYF473Z25
	C505, 506	CERAMIC CAPACITOR	CKSQYF104Z25
	C507, 508	CHIP CERAMIC C.	CCSQCH271J50
	C509	CHIP CAPACITOR	CCSQCH151J50
	C510	CHIP CAPACITOR	CCSQCH270J50
	C511	CERAMIC CAPACITOR	CKSQYF104Z25
	C512	ELECT. CAPACITOR	CEAS470M10
	C513	CERAMIC CAPACITOR	CKSQYF104Z25
	C514	AUDIO FILM CAPACITOR	CFTXA104J50
	C515	AUDIO FILM CAPACITOR	CFTXA683J50
	C516	CHIP CERAMIC C.	CCSQCH220J50
	C517	AUDIO FILM CAPACITOR	CFTXA683J50
	C520	CHIP CAPACITOR	CCSQCH180J50
	C521	ELECT. CAPACITOR	CEAS470M10
	C522	ELECT. CAPACITOR	CEAS100M50
	C524	CHIP CAPACITOR	CCSQCH390J50
	C525	ELECT. CAPACITOR	CEAS470M10
	C526	CERAMIC CAPACITOR	CKSQYF104Z25
	C527	CERAMIC CAPACITOR	CKSQYF473Z25
	C528	CHIP CAPACITOR	CCSQCH390J50
	C529	CHIP CAPACITOR	CCSQCH180J50
	C530	ELECT. CAPACITOR	CEANP100M16
	C531	CERAMIC CAPACITOR	CKSQYF104Z25
	C532	CHIP CAPACITOR	CCSQCH100D50
	C533	ELECT. CAPACITOR	CEAS470M16
	C535	CHIP CAPACITOR	CKSQYF103Z50
	C536	CHIP CAPACITOR	CCSQCH910J50
	C537	ELECT. CAPACITOR	CEAS010M50
	C549	CERAMIC CAPACITOR	CCSQCH560J50
	C550	CHIP CAPACITOR	CCSQCH151J50
	C551	ELECT. CAPACITOR	CEANP220M10
	C552	ELECT. CAPACITOR	CEAS470M10
	C553, 554	CHIP CAPACITOR	CKSQYF103Z50
	C555	CHIP CAPACITOR	CCSQCH100D50
	C556	CHIP CAPACITOR	CCSQCH050C50
	C557	CHIP CAPACITOR	CKSQYF103Z50
	C558	ELECT. CAPACITOR	CEAS470M10
	C559, 560	CHIP CAPACITOR	CCSQCH100D50
	C561, 562	CHIP CAPACITOR	CKSQYF103Z50
	C565	CHIP CAPACITOR	CCSQCH050C50

Mark	No.	Description	Part No.
	C566	CHIP CAPACITOR	CKSQYF103Z50
	C570	CHIP CAPACITOR	CCSQCH151J50
	C601	CERAMIC CAPACITOR	CKSQYF473Z25
	C602	CHIP CAPACITOR	CKSQYF103Z50
	C603	AUDIO FILM CAPACITOR	CFTXA224J50
	C604	CHIP CAPACITOR	CKSQYF103Z50
	C605-607	AUDIO FILM CAPACITOR	CFTXA102J50
	C608	AUDIO FILM CAPACITOR	CFTXA152J50
	C609	CHIP CAPACITOR	CCSQCH820J50
	C610	AUDIO FILM CAPACITOR	CFTXA563J50
	C611	MYLAR FILM CAPACITOR	CQMA272J50
	C612	CHIP CAPACITOR	CCSQCH180J50
	C613	ELECT. CAPACITOR	CEANP220M10
	C614	AUDIO FILM CAPACITOR	CFTXA332J50
	C615, 616	CHIP CAPACITOR	CKSQYF103Z50
	C617	AUDIO FILM CAPACITOR	CFTXA563J50
	C618	MYLAR FILM CAPACITOR	CQMA103J50
	C619	ELECT. CAPACITOR	CEANP2R2M50
	C620, 623	ELECT. CAPACITOR	CEANP220M10
	C625	ELECT. CAPACITOR	CEJANP4R7M16
	C626	AUDIO FILM CAPACITOR	CFTXA332J50
	C627	MYLAR FILM CAPACITOR	CQMA222J50
	C628	ELECT. CAPACITOR	CEJANP4R7M16
	C629	CERAMIC CAPACITOR	CKSQYF473Z25
	C630	CHIP CAPACITOR	CCSQCH270J50
	C631	CHIP CAPACITOR	CCSQCH100D50
	C632	CHIP CAPACITOR	CCSQCH101J50
	C633	CHIP CAPACITOR	CCSQCH180J50
	C634	CHIP CAPACITOR	CCSQCH121J50
	C635	CERAMIC CAPACITOR	CKSQYF104Z25
	C636	CHIP CAPACITOR	CCSQCH121J50
	C637, 638	CHIP CAPACITOR	CCSQSL471J50
	C639	CHIP CERAMIC C.	CCSQCH221J50
	C640	AUDIO FILM CAPACITOR	CFTXA102J50
	C641	CHIP CAPACITOR	CCSQCH151J50
	C642	CHIP CAPACITOR	CKSQYF103Z50
	C643	ELECT. CAPACITOR	CEAS470M10
	C645, 646	CHIP CAPACITOR	CKSQYF103Z50
	C650	ELECT. CAPACITOR	CEAS470M10
	C651	CHIP CAPACITOR	CKSQYF103Z50
	C660	CHIP CERAMIC C.	CCSQCH221J50
	C661, 662	CHIP CAPACITOR	CKSQYF103Z50
	C801	ELECT. CAPACITOR	CEAS470M10
	C802	ELECT. CAPACITOR	CEAS470M16
	C803-805	CHIP CAPACITOR	CKSQYF103Z50
	C806	CHIP CAPACITOR	CCSQCH820J50
	C807	CHIP CAPACITOR	CKSQYF103Z50
	C808	CHIP CAPACITOR	CCSQCH680J50
	C809	CHIP CAPACITOR	CCSQCH101J50
	C810	CHIP CAPACITOR	CCSQCH270J50
	C811	CHIP CAPACITOR	CCSQCH101J50
	C812	CHIP CAPACITOR	CCSQCH680J50
	C813	CERAMIC CAPACITOR	CKSQYF473Z25
	C814	CHIP CAPACITOR	CKSQYF103Z50
	C815	CERAMIC CAPACITOR	CKSQYF473Z25

Mark	No.	Description	Part No.
	C816	CHIP CAPACITOR	CCSQCH050C50
	C817,818	CHIP CAPACITOR	CKSQYF103Z50
	C831	ELECT. CAPACITOR	CEAS010M50
	C832	CHIP CAPACITOR	CKSQYF103Z50
	C841	CHIP CERAMIC C.	CCSQCH471J50
	C842	ELECT. CAPACITOR	CEAS101M10
	C843	CHIP CAPACITOR	CCSQCH270J50
	C844	CHIP CAPACITOR	CCSQCH050C50
	C845,846	CHIP CAPACITOR	CCSQCH470J50
	C847	CERAMIC CAPACITOR	CCSQCH510J50
	C848	ELECT. CAPACITOR	CEANP100M16
	C849	ELECT. CAPACITOR	CEJAR47M50
	C850,855	CHIP CAPACITOR	CKSQYF103Z50
	C856,857	CHIP CAPACITOR	CKSQYF103Z50
	C858	ELECT. CAPACITOR	CEANP470M10
	C901,902	ELECT. CAPACITOR	CEAS470M16
	C904	CHIP CAPACITOR	CKSQYF103Z50
	C911,912	CERAMIC CAPACITOR	CKSQYF104Z25
	C913	CERAMIC CAPACITOR	CKSQYB333K25
	C914,915	CHIP CAPACITOR	CKSQYF103Z50
	C917	CHIP CAPACITOR	CKSQYF103Z50
	C918	CHIP CERAMIC C.	CCSQCH271J50
	C919	CERAMIC CAPACITOR	CKSQYF104Z25
	C920	CERAMIC CAPACITOR	CKSQYB562K50
	C922	CERAMIC CAPACITOR	CKSQYF104Z25
	C923	CERAMIC CAPACITOR	CKSQYB562K50
	C924	CERAMIC CAPACITOR	CKSQYF104Z25
	C925	CERAMIC CAPACITOR	CKSQYB333K25
	C926	ELECT. CAPACITOR	CEJANP4R7M16
	C927	CERAMIC CAPACITOR	CKSQYF104Z25
	C928	CHIP CAPACITOR	CKSQYF103Z50
	C929	CERAMIC CAPACITOR	CKSQYB333K25
	C930	CHIP CERAMIC C.	CCSQCH271J50
	C931	CHIP CAPACITOR	CKSQYF103Z50
	C932	ELECT. CAPACITOR	CEJANP4R7M16
	C933,934	CHIP CAPACITOR	CKSQYF103Z50
	C935	ELECT. CAPACITOR	CEJAR47M50
	C936	CERAMIC CAPACITOR	CKSQYB333K25
	C937-939	CHIP CAPACITOR	CKSQYF103Z50
	C940	CHIP CAPACITOR	CKSQYB102K50
	C941,942	ELECT. CAPACITOR	CEHAQ100M50
	C943	CERAMIC CAPACITOR	CKSQYF473Z25
	C944	CHIP CAPACITOR	CKSQYB102K50
	C945	ELECT. CAPACITOR	CEAS010M50
	C946	CHIP CAPACITOR	CKSQYF103Z50
	C947	CERAMIC CAPACITOR	CKSQYF104Z25
	C948,949	CERAMIC CAPACITOR	CKSQYF473Z25
	C950	CERAMIC CAPACITOR	CKSQYF104Z25
	C951	CERAMIC CAPACITOR	CKSQYF473Z25
	C952	CERAMIC CAPACITOR	CKSQYF104Z25
	C956	CERAMIC CAPACITOR	CKSQYF473Z25
	C957	CHIP CERAMIC C.	CCSQCH271J50
	C958	CAPACITOR (ALUMINUM) (47μ/16V)	VCH1115
	C959	CERAMIC CAPACITOR	CKSQYF104Z25
	C999	CHIP CERAMIC C.	CCSQCH471J50

RESISTORS

Mark	No.	Description	Part No.
	VR441	SEMI-FIXED VR(22kΩ)	VRTB6VS223
	VR481,482	SEMI-FIXED VR(4.7kΩ)	VRTB6VS472
	VR521	SEMI-FIXED VR(4.7kΩ)	VRTB6VS472
	VR601	SEMI-FIXED VR(2.2kΩ)	VRTB6VS222
	VR603,604	SEMI-FIXED VR(47kΩ)	VRTB6VS473
	VR605,606	SEMI-FIXED VR(33kΩ)	VRTB6VS333
	VR607	SEMI-FIXED VR(47kΩ)	VRTB6VS473
	R406	CARBON FILM RESISTOR	RD1/6PM224J
	R415,416	METALFILM RESISTOR	RN1/6PQ3002F
	R431	CARBON FILM RESISTOR	RD1/6PM510J
	R434,438	METALFILM RESISTOR	RN1/6PQ□□□□F
	R496	CARBON FILM RESISTOR	RD1/6PM101J
	R511	METALFILM RESISTOR	RN1/6PQ2002F
	R558,564	CARBON FILM RESISTOR	RD1/6PM102J
	R591,593	CARBON FILM RESISTOR	RD1/6PM□□□J
	R605,619	CARBON FILM RESISTOR	RD1/6PM□□□J
	R631,667	CARBON FILM RESISTOR	RD1/6PM□□□J
	R668,817	CARBON FILM RESISTOR	RD1/6PM□□□J
	R845,846	CARBON FILM RESISTOR	RD1/6PM470J
	R854	CARBON FILM RESISTOR	RD1/6PM225J
	OTHER RESISTORS		RS1/10S□□□J

OTHERS

Mark	No.	Description	Part No.
		TERMINAL	VNE1841
	CN103	CONNECTOR (23P)	HLEM23S-1
	JA2	JACK	PKN1005
	JA3,4	JACK/12V	PKN1004
	X101	CERAMIC RESONATOR (9MHz)	VSS1040
	X401	CRYSTAL RESONATOR (17.734MHz)	VSS1019
	X601	CRYSTAL RESONATOR (14.22MHz)	VSS1053

AUDIO ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC201	EFM DEMODULATION IC	CXD2500AQ
	IC202	REGULATOR IC	NJM78L08A
	IC205	IC	BA15218N
	IC206	D/A CONVERTER IC	PD2026A
	IC207,208	OP-AMP IC	BA15218
	IC210	REGULATOR IC	NJM79L08A
	IC211	OP-AMP IC	BA15218
	Q203	DIGITAL TRANSISTOR	DTA124EK
	Q204,205	TRANSISTOR	2SD2144S
	Q206	DIGITAL TRANSISTOR	DTC124EK
	Q207,210	DIGITAL TRANSISTOR	DTA124EK
	Q212,213	DIGITAL TRANSISTOR	DTA124EK
	Q220	CHIP TRANSISTOR	2SC2412K
	Q221	DIGITAL TRANSISTOR	DTA124EK
	Q222,223	CHIP TRANSISTOR	2SA1037K
	D201	VARI-CAP	FC54M
	D202,205	DIODE	1SS254
	D206,207	DIODE	1SS254
	D210	SCHOTTKY DIODE	ERA83-006

COILS AND FILTERS

Mark	No.	Description	Part No.
	L201, 202	AXIAL INDUCTOR	LAU010K
	L203	AXIAL INDUCTOR	LAU220J
	L204, 205	AXIAL INDUCTOR	LAU010K
	F201, 301	COIL	VTH1016
	F302, 303	COIL	VTH1016

CAPACITORS

Mark	No.	Description	Part No.
	C201	CERAMIC CAPACITOR	CKSQYF473Z25
	C202	AUDIO FILM CAPACITOR	CFTXA152J50
	C203	ELECT. CAPACITOR	CEAS470M10
	C204	CERAMIC CAPACITOR	CKSQYF104Z25
	C205	ELECT. CAPACITOR	CEAS470M16
	C206	CHIP CAPACITOR	CKSQYF103Z50
	C207	ELECT. CAPACITOR	CEAS471M10
	C208	ELECT. CAPACITOR	CEAS470M10
	C209, 210	CERAMIC CAPACITOR	CKSQYF104Z25
	C211	ELECT. CAPACITOR	CEAS470M10
	C212	CERAMIC CAPACITOR	CKSQYF104Z25
	C213, 216	CHIP CAPACITOR	CKSQYF103Z50
	C217, 218	CHIP CAPACITOR	CKSQYF103Z50
	C219	CERAMIC CAPACITOR	CKSQYF104Z25
	C220, 221	CHIP CERAMIC C.	CCSQCH271J50
	C225, 226	ELECT. CAPACITOR	CEAS470M10
	C228	ELECT. CAPACITOR	CEAS100M50
	C230	ELECT. CAPACITOR	CEAS470M10
	C231	CHIP CAPACITOR	CKSQYF103Z50
	C232	CHIP CAPACITOR	CCSQCH120J50
	C234, 251	CHIP CAPACITOR	CKSQYF103Z50
	C252, 253	ELECT. CAPACITOR	CEAS470M10
	C254	CERAMIC CAPACITOR	CKSQYF104Z25
	C255	ELECT. CAPACITOR	CEAS471M10
	C256	ELECT. CAPACITOR	CEAS470M10
	C257	ELECT. CAPACITOR	CEAS471M10
	C258-263	CHIP CAPACITOR	CCSQCH390J50
	C264, 265	AUDIO FILM CAPACITOR	CFTXA152J50
	C266, 267	CHIP CAPACITOR	CKSQYB682K50
	C268, 269	AUDIO FILM CAPACITOR	CFTXA102J50
	C270-273	ELECT. CAPACITOR	CEAS470M10
	C274, 275	ELECT. CAPACITOR	CEANP220M10
	C279	ELECT. CAPACITOR	CEAS471M10
	C283	ELECT. CAPACITOR	CEAS470M10
	C284, 285	ELECT. CAPACITOR	CEAS100M50
	C301	ELECT. CAPACITOR	CEANP220M10
	C303	ELECT. CAPACITOR	CEAS470M10
	C304-306	CHIP CAPACITOR	CKSQYF103Z50
	C309	ELECT. CAPACITOR	CEAS470M10
	C310, 311	CERAMIC CAPACITOR	CKSQYF104Z25
	C320	CHIP CAPACITOR	CKSQYF103Z50
	C322	CERAMIC CAPACITOR	CKSQYF473Z25
	C323, 324	CHIP CAPACITOR	CKSQYF103Z50
	C325, 326	CERAMIC CAPACITOR	CKSQYF104Z25
	C563	ELECT. CAPACITOR	CEAS221M6R3

RESISTORS

Mark	No.	Description	Part No.
	R212, 213	CARBON FILM RESISTOR	RD1/6PM470J
	R220-222	CARBON FILM RESISTOR	RD1/6PM□□□J
⚠	R234	RESISTOR (4.7Ω)	DCN1001
	R259-269	CARBON FILM RESISTOR	RD1/6PM□□□J
	R271, 272	CARBON FILM RESISTOR	RD1/6PM222J
	R274-276	CARBON FILM RESISTOR	RD1/6PM471J
	R293	CARBON FILM RESISTOR	RD1/6PM471J
	R566, 587	CARBON FILM RESISTOR	RD1/6PM□□□J

OTHERS

Mark	No.	Description	Part No.
		TERMINAL	VNE1841
	CN301	5P TOP POST (NH)	B5P-SHF-1AA
	JA6	JACK (3P)	VKB1049
	JA8	OPTICAL OUTPUT JACK	TOTX178
	X201	CRYSTAL RESONATOR(16MHz)	VSS1057

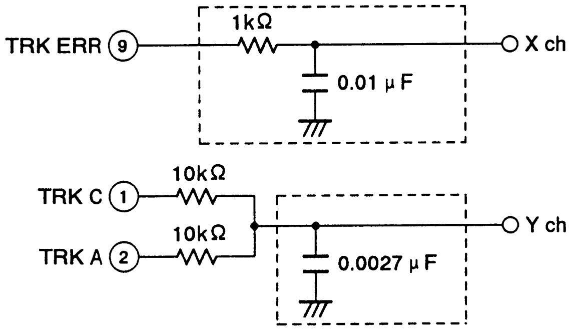
5. ADJUSTMENTS

5.1 PRELIMINARIES

● Jigs for Adjustment

- CD test disc (STD - 901 or STD - 902)
- LD test disc (GGV1003 and GGV1007)
- (–) screwdriver (medium)
- (–) screwdriver (small)
- Hexagonal wrench driver (straight type, size: 3mm)
- Resistors (10kΩ × 2, 47kΩ)
- Dual - trace oscilloscope (with delay)
- AF oscillator
- Frequency counter
- TV monitor
- Low-pass filter

Use the low-pass filters below in the coarse centering adjustment 2. and fine centering adjustment 6. when the S/N of the waveform is hard to observe.


1kΩ
TRK ERR ⑨
X ch
0.01 μ F
10kΩ
TRK C ①
10kΩ
TRK A ②
Y ch
0.0027 μ F

● Rack Assembly During Centering Adjustment

The S - IN position (without hitting the mechanism stopper) of the rack assembly during centering adjustment is indicated below.

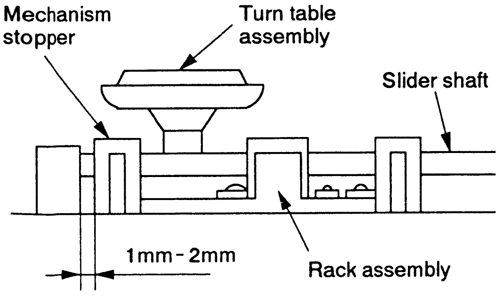

Mechanism stopper
Turn table assembly
Slider shaft
1mm - 2mm
Rack assembly

Fig. 1 Right side view

● Adjustment Locations

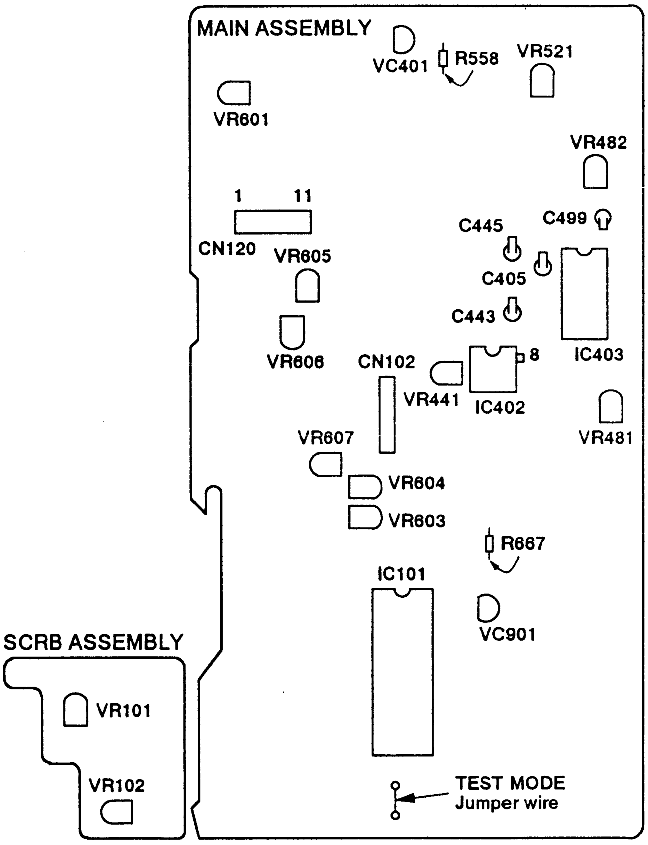
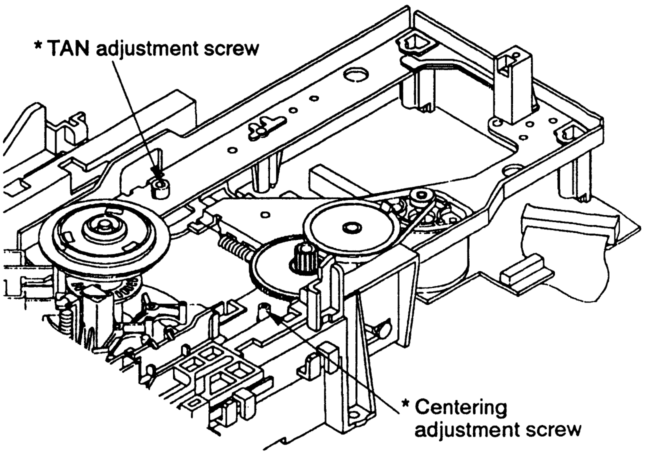

MAIN ASSEMBLY
VC401
R558
VR521
VR601
VR482
1
11
CN120
VR605
C445
C499
C405
C443
VR606
CN102
8
IC403
VR441
IC402
VR607
VR481
VR604
VR603
R667
IC101
VC901
SCRB ASSEMBLY
VR101
VR102
TEST MODE
Jumper wire

Fig. 2 MAIN and SCRB assemblies section


* TAN adjustment screw
* Centering adjustment screw

* : As the adjustment range of both the TAN and centering adjustment screws is only ± 90 ° form the center, do not turn the screws beyond this range.

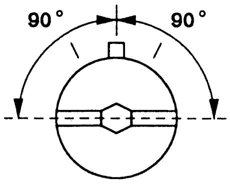


Fig. 3 TILT base section

● Test Mode

1) Activating the Test Mode
   1. While power is ON, connect the Test mode jumper wire (Fig. 2) to the GND for about one second.
   2. After checking whether the FL display device is fully lit, disconnect the Test mode jumper wire from GND.
2) Canceling the Test Mode
   1. Turn the power OFF.

● Key operation in the Test mode

Player Status	Key Operation	Function	Remarks
Tray Open	I◀◀ / ▶▶I SKIP (Refer to Note 1)	I◀◀ : Shifts the tray in the closed direction and also raises the turn table while it is held down. ▶▶I : Shifts the tray in the open direction and also lowers the turn table while it is held down.	
Tray Open	▶ Play	Clamps	
Clamp	▶ Play	Turns the disc through TRK Servo Open	TRK - OFF
TRK Servo Open	▶ Play	TRK Servo Close	TRK - ON
TILT Neutral	+MULTI - SPEED	TILT Servo Close	T-□:ON
TILT ON	- MULTI - SPEED	TILT Neutral	T-□:N
TILT Neutral or ON	I◀◀ / ▶▶I SKIP	Setting TILT Servo to OFF, can force TILT to move.	T - 1 to T - E
Clamp	◀◀ / ▶▶ SCAN	Can force the slider to move	S - LD S - CDV S - CD S - IN
Play	I I PAUSE	Still	
Play	■ STOP	Stop	
Stop	▲ OPEN	Open	
Play	+10 ⇩ 0 to 9 ⇩ ▶ PLAY	Set to SEARCH lead address input mode. Designates the SEARCH lead address through keys 0 to 9. Press the CLEAR C key if the designated address is incorrect. Searches the designated address upon pressing the PLAY key.	

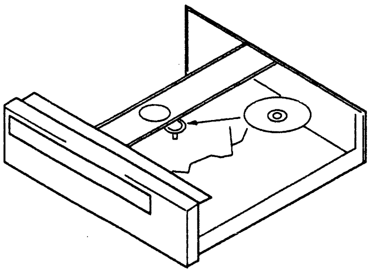
Note 1: Press SKIP (I◀◀ / ▶▶I) keys after the tray is set to open state by pressing OPEN (▲) key.
In tray open state, pressing PLAY (▶) key causes is to TILT control state and SKIP keys cannot function properly.

● Player Operation in the Test Mode

Operate the player by selecting a test mode function with the keys on the player or on the remote control unit.

- CD PLAYBACK

① Place the CD disc on the turn table.



② Press the PLAY (▶) key once.
(Twin gear starts to move.)

③ Push the cam plate (Fig. 4) in the direction of the arrow and wait until the CD disc is clamped.

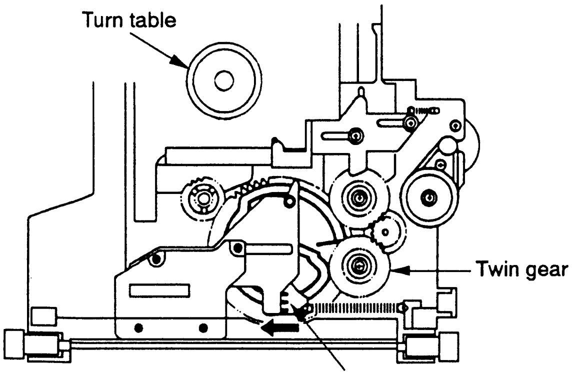
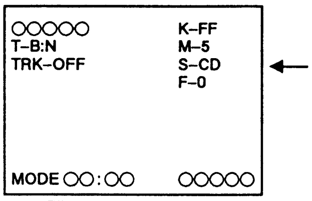


Fig. 4

④ Press the ◀◀ or ▶▶ keys to appear "S - CD" on the TV screen display.



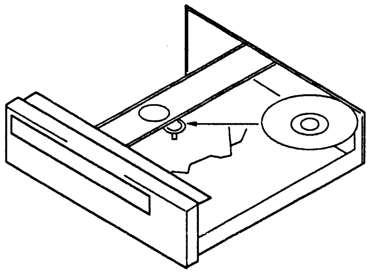
```
OOOOO           K-FF
T-B:N           M-5
TRK-OFF         S-CD   ←
                F-0



MODE OO:OO      OOOOO
```

TV screen display

⑤ Press the PLAY (▶) key twice, disc will be normally playbacked.

- LD PLAYBACK

① Place the LD disc on the turn table.

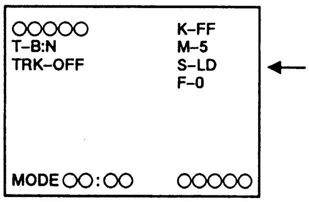


② Press the PLAY (▶) key once. (Twin gear starts to move.)

③ Press the SKIP REV (|◀◀) key to raise the turn table (spindle motor section) while pressing the cam plate (Fig. 4) in the direction of the arrow.
Raise it to the position where the LD disc can be easily placed on the turn table.
If the turn table is raised too high, lower it with the SKIP FWD (▶▶|) key.

④ Place the LD disc on the turn table and press the PLAY (▶) key once to clamp the disc.

⑤ Press the ◀◀ or ▶▶ keys to appear "S - LD" on the TV screen display.

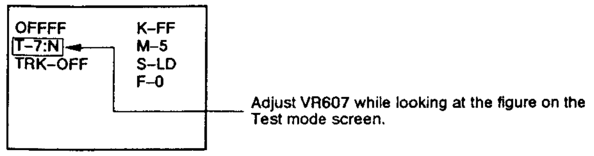
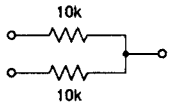
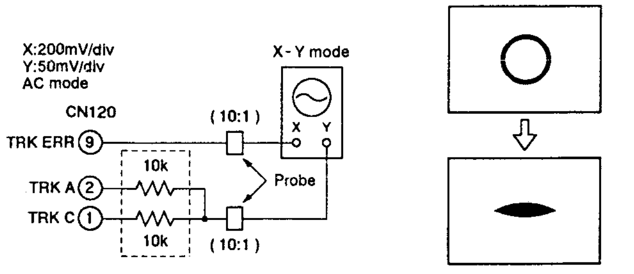
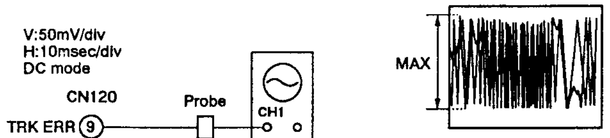
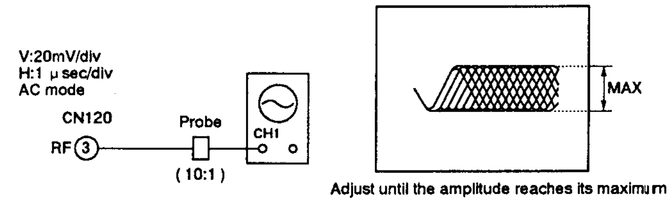
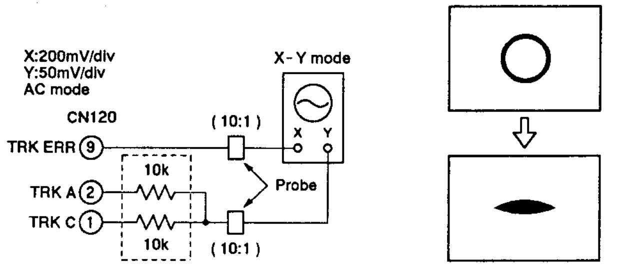
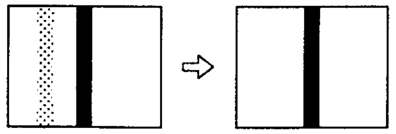
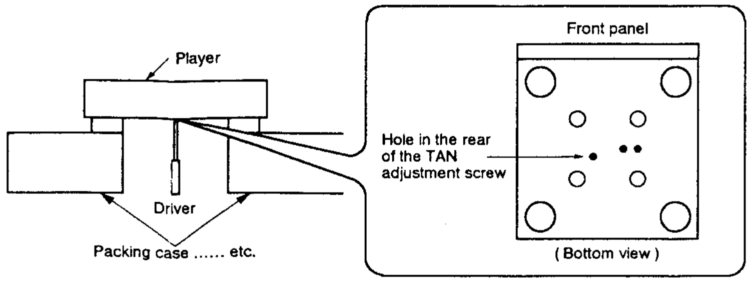


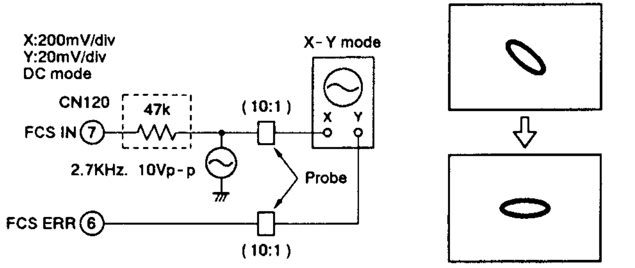
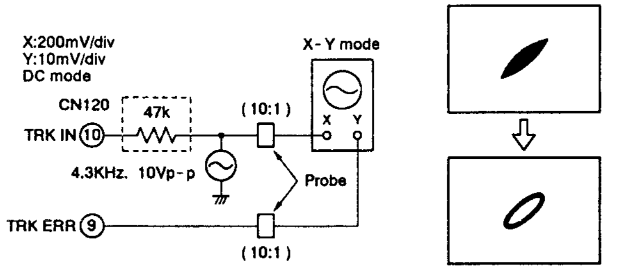
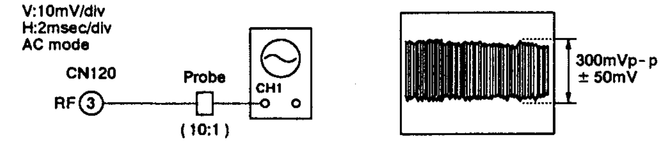
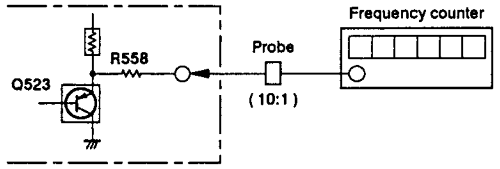
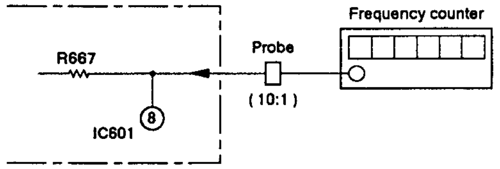
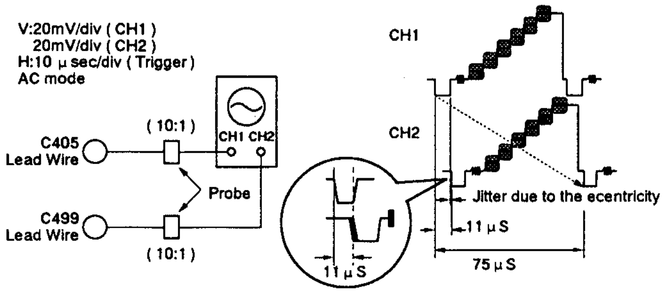
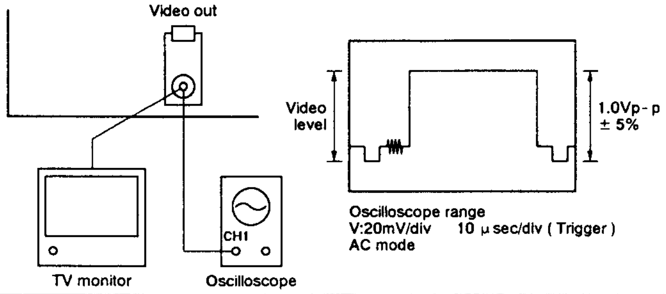
```
OOOOO           K-FF
T-B:N           M-5
TRK-OFF         S-LD   ←
                F-0



MODE OO:OO      OOOOO
```

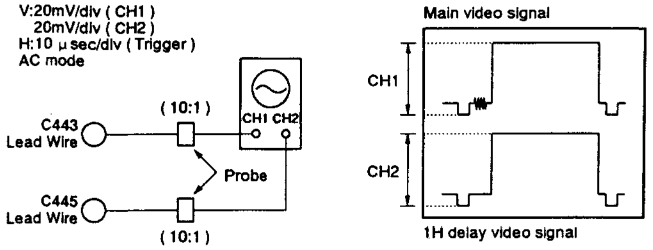
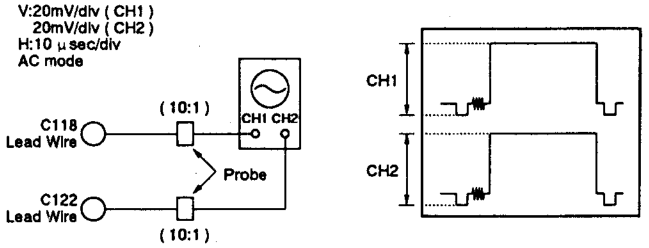
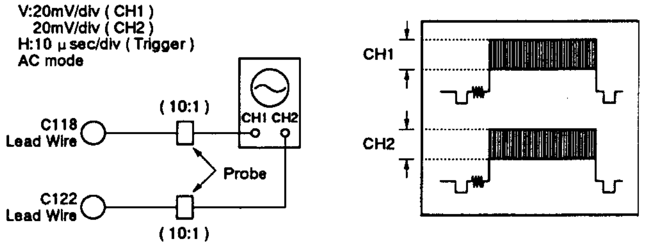
TV screen display

⑥ Press the PLAY (▶) key twice, disc will be normally playbacked.

5.2 ADJUSTMENT TABLE

	Adjustment name	Adjustment point	Measuring equipment and jigs	Measurement point	Player condition	Adjustment procedure	Waveform and connection diagram
1	Tilt Offset Check and Adjustment	VR607	• TV monitor	Tilt indication on Test mode screen	• Power ON • Test mode • Disc not installed	1. Check if the tilt indication on the Test mode screen is at T-6 to T-8. 2. If the tilt indication is not at T-6 to T-8, adjust VR607 until the tilt indication reaches T-6 to T-8.	 OFFFF T-7:N TRK-OFF K-FF M-5 S-LD F-0 Adjust VR607 while looking at the figure on the Test mode screen.
2	Coarse centering adjustment	Tilt base centering adjustment screw	• Oscilloscope • STD-901 or STD-902 • MIX resistor 	CN120 X: ⑨ Pin (TRK ERR) Y: ①+② Pin (TRK SUM)	• Test mode TRK Servo Open Tilt Servo ON • Innermost track of STD-901 or STD-902 which does not come in contact with the mechanical stopper.	1. Move the slider until it does not come in contact with the mechanical stopper at the slider position indication S-IN. 2. Observe TRK ERR (Xch) and TRK SUM (Ych) at the X-Y mode during TRK Servo Open. 3. Turn the centering adjustment screw until the Lissajous figure is horizontal.	 X:200mV/div Y:50mV/div AC mode CN120 X-Y mode (10:1) X Y TRK ERR ⑨ 10k TRK A ② TRK C ① 10k Probe (10:1) Adjust until the Lissajous figure is horizontal.
3	FCS balance adjustment (1) TRK ERR MAX	VR605	• Oscilloscope • STD-901 or STD-902	CN120 ⑨ Pin (TRK ERR)	• Test mode TRK Servo Open Tilt Servo ON • Inner track of STD-901 or STD-902	1. Observe TRK ERR at CH1 of the oscilloscope during TRK Servo Open. 2. Adjust VR605 until the amplitude of the waveform reaches its maximum.	 V:50mV/div H:10msec/div DC mode CN120 Probe CH1 TRK ERR ⑨ (10:1) MAX Adjust until the amplitude reaches its maximum.
4	FCS balance adjustment (2) RF MAX	VR606	• Oscilloscope • STD-901 or STD-902	CN120 ③ Pin (RF)	• Test mode TRK Servo Close Tilt Servo ON • Inner track of STD-901 or STD-902	1. Close the TRK Servo and observe RF at CH1 of the oscilloscope. 2. Adjust VR606 until the amplitude of the waveform reaches its maximum and the envelope is very clear.	 V:20mV/div H:1 μ sec/div AC mode CN120 Probe CH1 RF ③ (10:1) MAX Adjust until the amplitude reaches its maximum and the envelope is very clear.
5	Tangential direction angle adjustment	Tilt base TAN adjustment screw	• Oscilloscope • STD-901 or STD-902	CN120 ③ Pin (RF)	• Test mode TRK Servo Close Tilt Servo ON • Inner track of STD-901 or STD-902	1. Observe RF at CH1 of the oscilloscope during TRK Servo Close. 2. Adjust the TAN adjustment screw until the amplitude of the waveform reaches its maximum and the envelope is very clear.	
6	Fine centering adjustment	Tilt base Centering adjustment screw	• Oscilloscope • STD-901 or STD-902	CN120 X: ⑨ Pin (TRK ERR) Y: ①+② Pin (TRK SUM)	• Test mode TRK Servo Open Tilt Servo ON • Innermost track of STD-901 or STD-902 which does not come in contact with the mechanical stopper.	Perform fine centering adjustment by following the same procedure as in "(2) Coarse centering adjustment".	 X:200mV/div Y:50mV/div AC mode CN120 X-Y mode (10:1) X Y TRK ERR ⑨ 10k TRK A ② TRK C ① 10k Probe (10:1) Adjust until the Lissajous figure is horizontal.
7	Crosstalk check and Tilt offset adjustment	VR607	• TV monitor • GGV1003	Crosstalk check screen	• Test mode TRK Servo Close Tilt Servo ON • GGV1003 #115 STILL	1. Search for address 115 of GGV1003 and still the address. 2. Check the crosstalk . If the crosstalk is pronounced, adjust VR607 until the crosstalk is not noticeable.	 If the crosstalk is pronounced, adjust until the crosstalk is not noticeable.
	When the crosstalk is still noticeable in spite of the adjustment in (7), use a hexagonal wrench driver (straight type, size: 3 mm) to adjust the TAN adjustment screw on the bottom side of the player through the GGV1003 #115 STILL screen. Afterwards, perform the adjustment procedures from (6).						 Player Driver Packing case ...... etc. Front panel Hole in the rear of the TAN adjustment screw (Bottom view)

	Adjustment name	Adjustment point	Measuring equipment and jigs	Measurement point	Player condition	Adjustment procedure	Waveform and connection diagram
8	FCS Servo loop gain adjustment	VR604	• Oscilloscope • GGV1003 • AF Oscillator • Resistor (47kΩ)	CN120 X: ⑦ Pin (FCS IN) Y: ⑥ Pin (FCS ERR)	• Test mode TRK Servo Close Tilt Servo ON • GGV1003 #15,000 STILL	1. Search for address 15,000 of GGV1003 and still the address. 2. Xch: Connect the resistor (47kΩ) to the channel and connect to FCS IN. Ych: Connect to FCS ERR. 3. Connect the AF oscillator between Xch and the 47kΩ resistor, and adjust **VR604** until the Lissajous figure is symmetrical.	 X:200mV/div Y:20mV/div DC mode X- Y mode CN120 47k (10:1) FCS IN ⑦ X Y 2.7KHz. 10Vp- p Probe FCS ERR ⑥ (10:1) Adjust until the Lissajous figure is symmetrical.
9	TRK Servo loop gain adjustment	VR601	• Oscilloscope • GGV1003 • AF Oscillator • Resistor (47kΩ)	CN120 X: ⑩ Pin (TRK IN) Y: ⑨ Pin (TRK ERR)	• Test mode Stop mode or TRK Servo Close Tilt Servo ON • GGV1003 #15,000 STILL	1. Xch: Connect the 47kΩ resistor to channel and connect to TRK IN. Ych: Connect to TRK ERR. 2. Connect the AF oscillator between Xch and the 47kΩ resistor and note the tilt angle against the horizon with the disc in the stopped state. 3. Search for address 15,000 of GGV1003 and still the address. 4. Set the disc PLAY mode (TRK servo closed, TILT on). Adjust VR603 so that the tilt angle of the waveform will be the same as the tilt angle noted in step 3.	 X:200mV/div Y:10mV/div DC mode X- Y mode CN120 47k (10:1) TRK IN ⑩ X Y 4.3KHz. 10Vp- p Probe TRK ERR ⑨ (10:1) Adjust until the Lissajous figure is symmetrical.
10	RF level adjustment	VR601	• Oscilloscope • GGV1003	CN120 ③ Pin (RF)	• Test mode TRK Servo Close Tilt Servo ON • GGV1003 #15,000 STILL	1. Search for address 15,000 of GGV1003 and still the address. Observe RF at CH1 of the oscilloscope. 2. Adjust **VR601** until the RF amplitude is 300mV ± 50mVp- p.	 V:10mV/div H:2msec/div AC mode CN120 Probe CH1 RF ③ (10:1) 300mVp- p ± 50mV
11	Synchronizing signal generator clock adjustment	VC401	• Frequency counter	R558 lead wire (No connection side)	• Power ON • Stop mode	Adjust clock frequency (17.734475MHz) ± 100Hz.	 Frequency counter R558 Probe Q523 (10:1)
12	REF- H adjustment	VC901	• Frequency counter	R667 lead wire (IC601 (PM3002) ⑧ Pin side)	• Power ON • Stop mode	Adjust FCS (3.5546875 MHz) ± 25Hz.	 Frequency counter R667 Probe (10:1) ⑧ IC601
13	VCO center frequency adjustment	VR481	• Oscilloscope • GGV1007	CH1: C405 lead wire CH2: C499 lead wire	• Normal mode • GGV1007 #15,000 STILL	Place a trigger in CH1 and adjust until the center of the CH2 video signal jitter is 75 μ sec (1H + 11 μ sec) ± 2 μ sec compared to the CH1 video signal.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Trigger) AC mode CH1 (10:1) CH1 CH2 CH2 C405 Lead Wire Probe Jitter due to the ecentricity C499 Lead Wire 11 μ S (10:1) 11 μ S 75 μ S
14	Video level adjustment	VR482	• TV monitor • Oscilloscope • GGV1007	Video output terminal	• Normal mode • GGV1007 #5,251 to #6,000 PLAY	Connect a 75 Ω resistor to the VIDEO output terminal (possibly by connecting to the monitor) and adjust until the sync tip to 100% white level is 1Vp- p ± 5% at the white (100%) signal.	 Video out Video level 1.0Vp- p ± 5% Oscilloscope range V:20mV/div 10 μ sec/div (Trigger) AC mode CH1 TV monitor Oscilloscope

	Adjustment name	Adjustment point	Measuring equipment and jigs	Measurement point	Player condition	Adjustment procedure	Waveform and connection diagram
15	1H DLY video level adjustment	VR441	• Oscilloscope • GGV1007	CH1: C443 lead wire CH2: C445 lead wire	• Normal mode • GGV1007 #5,300 STILL	Adjust until the sync tip to 100% white level at the white (100%) signal is the same as in CH1 and CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Trigger) AC mode (10:1) C443 Lead Wire CH1 CH2 Probe C445 Lead Wire (10:1) Main video signal CH1 CH2 1H delay video signal
16	VPS error level adjustment	VR521	• TV monitor • GGV1007	TV monitor	• Normal mode • GGV1007 #6,001 to #6,750 PLAY (Magenta screen)	Adjust until the color irregularity on the magenta screen is minimized.	Color irregularity on the magenta screen is minimized.
17	MOD video level adjustment	VR102	• Oscilloscope • GGV1007	CH1: C118 lead wire CH2: C122 lead wire	• Normal mode • GGV1007 #5,300 STILL	Adjust until the sync tip to 100% white level at the white (100%) signal is the same as in CH1 and CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div AC mode (10:1) C118 Lead Wire CH1 CH2 Probe C122 Lead Wire (10:1) CH1 CH2
18	1H delay sub carrier adjustment	VR101	• Oscilloscope • GGV1007	CH1: C118 lead wire CH2: C122 lead wire	• Normal mode • GGV1007 #5,100 STILL	Adjust until the chroma signal level at the magenta signal is the same as in CH1 and CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Trigger) AC mode (10:1) C118 Lead Wire CH1 CH2 Probe C122 Lead Wire (10:1) CH1 CH2

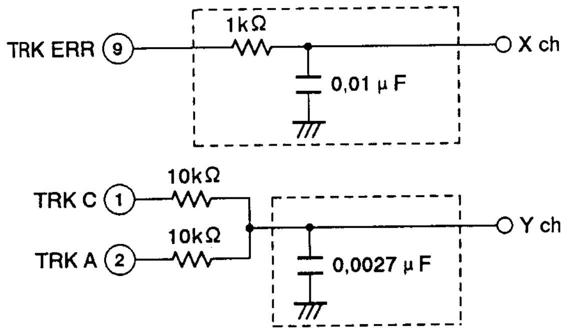
5. REGLAGES

5.1 PREPARATIFS

● Instruments Pour Reglage

- Disque d'essai pour CD (STD - 901 ou STD - 902)
- Disque d'essai pour LD (GGV1003 ou GGV1007)
- (–) Tournevis à tête plate (taille moyenne)
- (–) Tournevis à tête plate (petit)
- Clé hexagonale (type droit, taille: 3mm)
- Résistances (10kΩ × 2, 47 kΩ)
- Oscilloscope à double traces (avec retard)
- Oscillateur audiofréquence (AF)
- Compteur de fréquence
- Moniteur TV
- Filtre passe-bas

Utiliser les filtres passe-bas ci - dessous pour le réglage approximatif de centrage 2 et le réglage fin de centrage 6 si la forme d'onde du S/B est difficile à observer.


TRK ERR ⑨
1kΩ
0,01 μ F
X ch
TRK C ①
10kΩ
TRK A ②
10kΩ
0,0027 μ F
Y ch

● Ensemble de Rack Pour le Reglage de Centrage

La position S - IN (la position où la butée de mécanisme n'est pas cognée) du rack pour le réglage de centrage est indiquée ci - dessous.

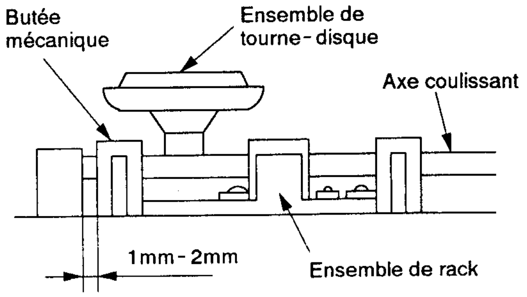

Butée mécanique
Ensemble de tourne- disque
Axe coulissant
1mm - 2mm
Ensemble de rack

Fig. 1 Vue de la côté droite

● Points de Regrage

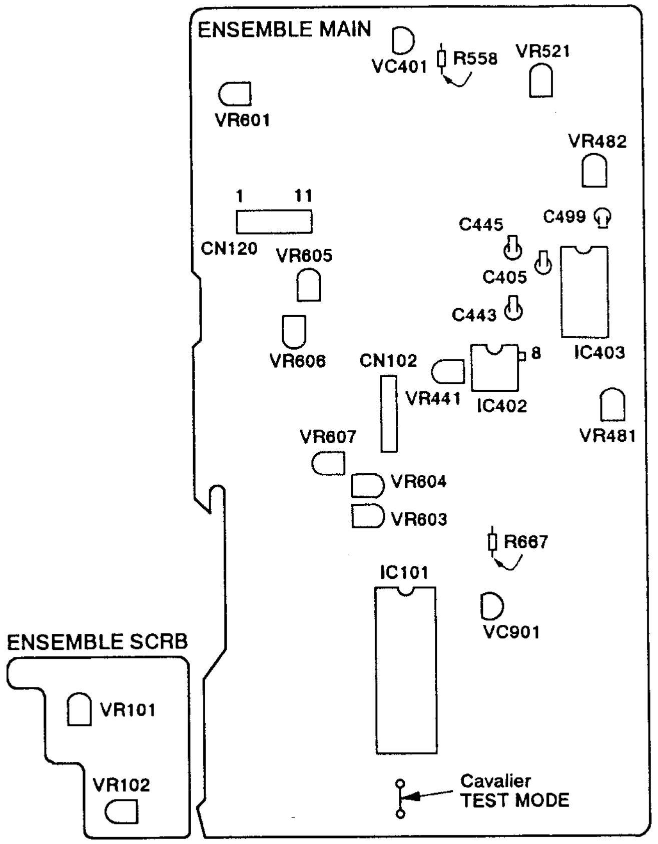
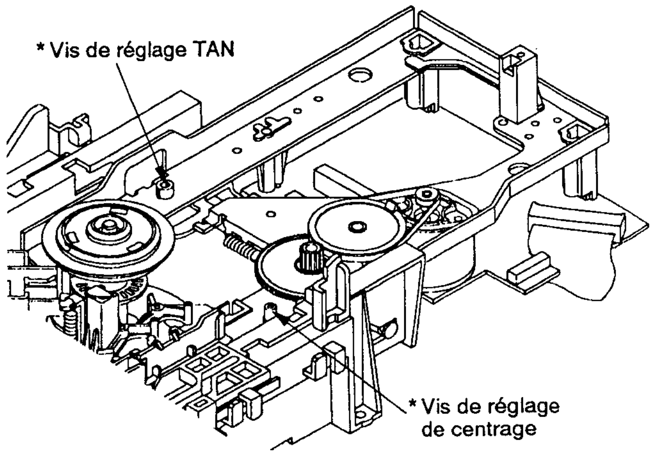

ENSEMBLE MAIN
VC401
R558
VR521
VR601
VR482
1
11
CN120
VR605
C445
C499
C405
C443
VR606
CN102
8
IC403
VR441
IC402
VR607
VR481
VR604
VR603
R667
IC101
VC901
ENSEMBLE SCRB
VR101
VR102
Cavalier TEST MODE

Fig. 2 Ensembles MAIN et SCRB


* Vis de réglage TAN
* Vis de réglage de centrage

* : Ne pas tourner les vis de réglage TAN et de centrage au - delà de la gamme de réglage, c'est - à - dire, ± 90 ° du centre.

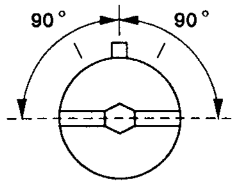


Fig. 3 Base TILT

● Mode D'essai

1) Lancement du mode d'essai
   1. Après la mise en marche de l'appareil, connecter le cavalier du mode d'essai (Fig. 2) à GND pendant environ une seconde.
   2. Après avoir confirmé que l'affichage FL est allumé à fond, débrancher le cavalier du mode d'essai de GND.
2) Annulation du mode d'essai
   1. Mettre l'appareil hors tension.

● Fonction des touches en mode d'essai

Etat de lecteur	Touche à déclencher	Fonction	Remarques
Plateau ouvert	I◀◀ / ▶▶I SKIP (Se reporter à la Remarque 1.)	I◀◀ : Déplace le plateau à la direction de fermture et élève le tourne - dique pendant que la touche est enfoncée. ▶▶I : Déplace le plateau à la direction de ouverture et baisse le tourne - disque pendant que la touche est enfoncée.	
Plateau ouvert	▶ Play	Verrouille.	
Verrouillé	▶ Play	Tourner le disque par la commande TRK SERVO OPEN.	TRK - OFF
Asservissement TRK ouvert	▶ Play	Asservissement TRK fermé.	TRK - ON
TILT en neutre	+MULTI - SPEED	Asservissement TILT fermé.	T-☐:ON
TILT ON	- MULTI - SPEED	TILT en neutre	T-☐:N
TILT en neutre ou ON	I◀◀ / ▶▶I SKIP	En plaçant l'asservissement TILT sur OFF, il est possible de mouvoir TILT.	T - 1 à T - E
Verrouillé	◀◀ / ▶▶ SCAN	Il est possible de faire le coulisseau déplacer.	S - LD S - CDV S - CD S - IN
Lecture	I I PAUSE	Arrêt sur image	
Lecture	■ STOP	Arrête	
Arrêt	▲ OPEN	Ouvrir	
Lecture	+10 ⇩ 0 à 9 ⇩ ▶ PLAY	Placer sur le mode entrée de recherche d'adresse d'amorçage. Désigner l'adresse d'amorçage à rechercher avec les touches 0 à 9. Appuyer sur la touche CLEAR C si l'adresse désignée est incorrecte. L'appareil commence à rechercher l'adresse désignée quand la touche PLAY est appuyée.	

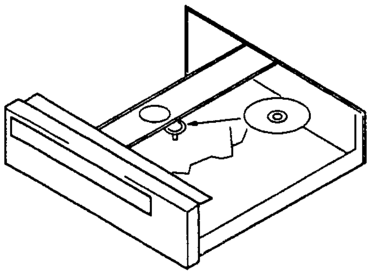
Remarque 1: Appuyer sur les touche SKIP (I◀◀ / ▶▶I) après que le plateau est placé en mode ouverture par la touche OPEN (▲).
En état ouverture de plateau, une poussée sur la touche PLAY (▶) rend l'appareil en état d'inclinaison et les touches SKIP ne fonctionnent pas correctement.

● Fonctionnement du Lecteur en Mode D'essai

Manipuler le lecteur en choisissant le mode d'essai avec les touches du lecteur ou celles de la télécommande.

• LECTURE DE CD

① Placer le disque CD sur le tourne - disque.



② Appuyer une fois sur la touche PLAY (▶).
(Une paire d'engrenage commence à mouvoir.)

③ Enfoncer la came à plaque (Fig. 4) dans la direction de la flèche, et attendre que le disque CD soit verrouillé.

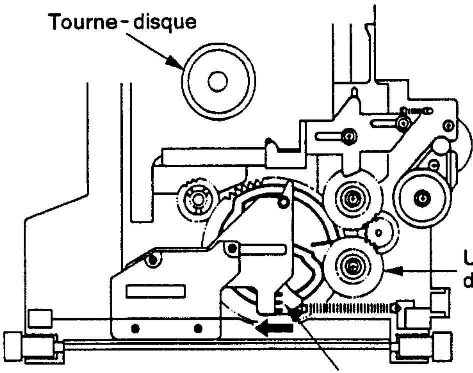
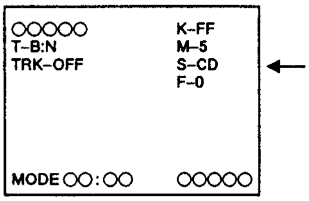


Fig. 4

④ Appuyer sur la touche [◀◀] ou [▶▶] pour faire apparaître "S - CD" sur l'écran du moniteur TV.



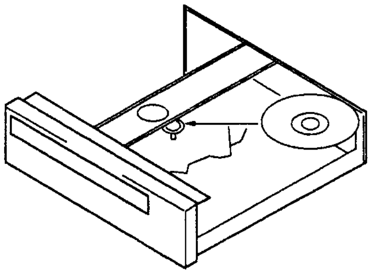
```
OOOOO          K-FF
T-B:N          M-5
TRK-OFF        S-CD   ←
               F-0


MODE OO:OO     OOOOO
```

Affichage sur le moniteur TV

⑤ Appuyer deux fois sur la touche PLAY (▶). Le disque sera reproduit normalement.

● LECTURE DE LD

① Placer le disque LD sur le tourne - disque.

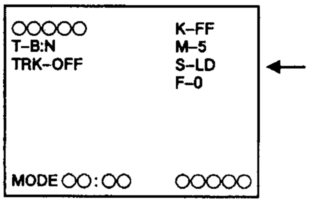


② Appuyer une fois sur la touche PLAY (▶) .
(Une paire d'engrenage commence à mouvoir.)

③ Appuyer sur la touche SKIP REV (|◀◀) tout en appuyant sur la came à plaque (Fig. 4) dans la direction de la flèche pour faire élever le tourne - disque (section moteur de broche). Elever le tourne - disque de sorte que le disque LD peut être placé facilement sur le tourne - disque.
Si le tourne - disque est trop élevé, l'abaisser avec la touche SKP FWD (▶▶|) .

④ Placer le disque LD sur le tourne - disque et appuyer une fois sur la touche PLAY (▶) pour verrouiller le disque.

⑤ Appuyer sur la touche [◀◀] ou [▶▶] pour faire apparaître "S - LD" sur l'écran du moniteur TV.

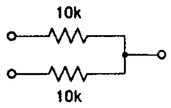


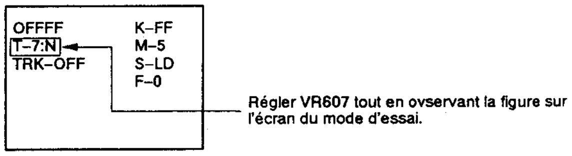
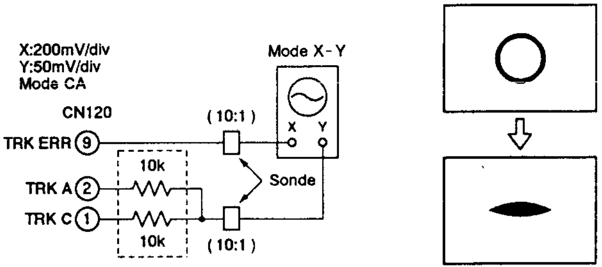
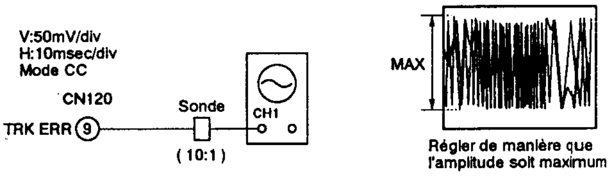
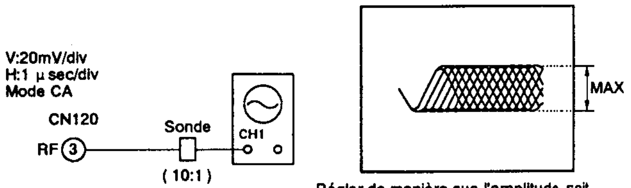
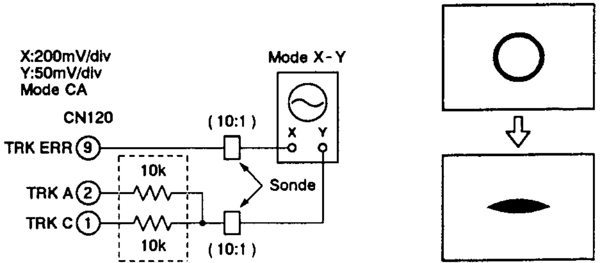
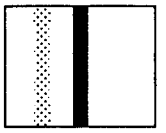
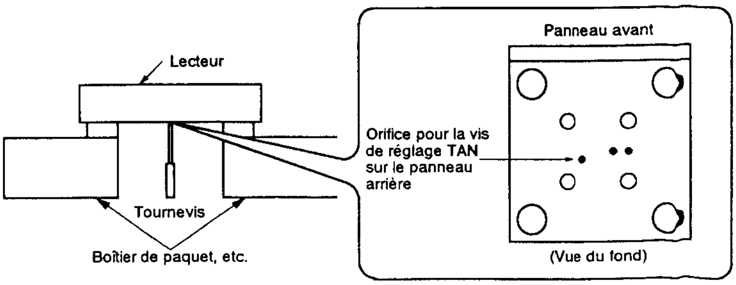
```
OOOOO          K-FF
T-B:N          M-5
TRK-OFF        S-LD   ←
               F-0


MODE OO:OO     OOOOO
```

Affichage sur le moniteur TV

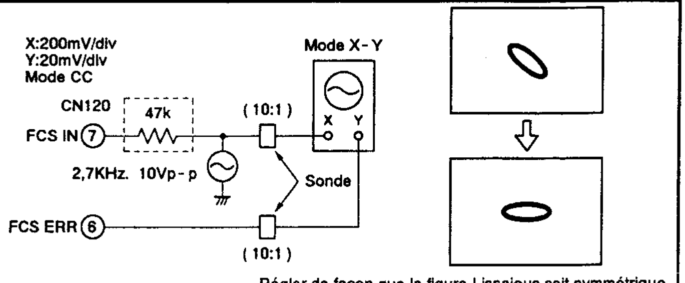
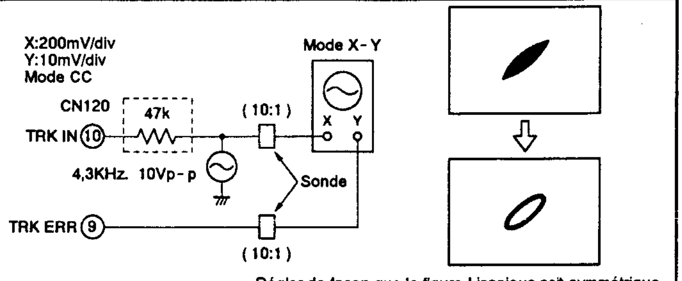
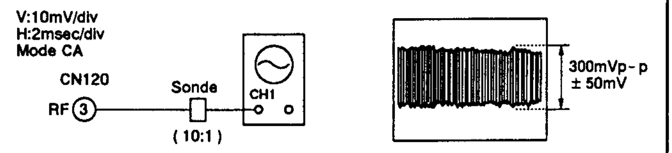
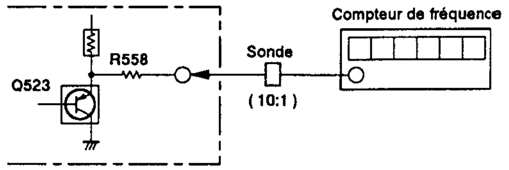
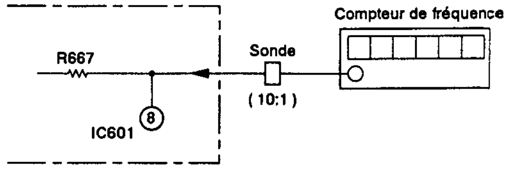
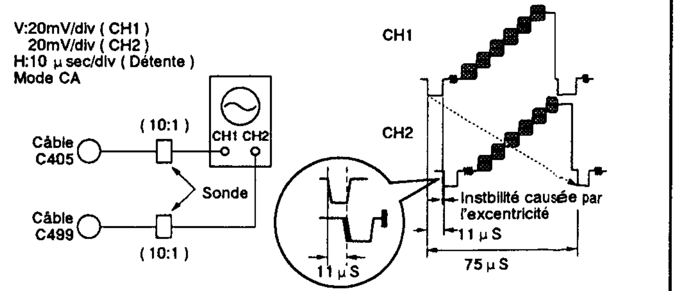
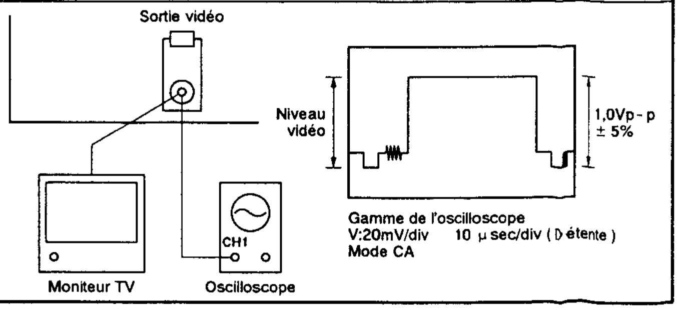
⑥ Appuyer deux fois sur la touche PLAY (▶). Le disque sera reproduit normalement.

5.2 SOMMAIRE DES REGLAGE

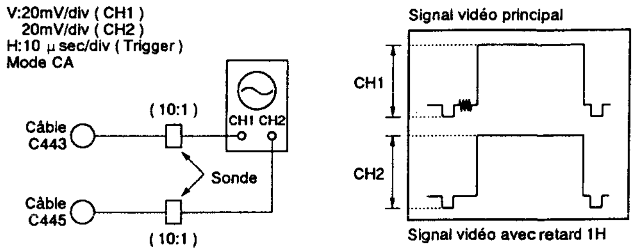
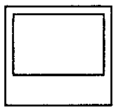
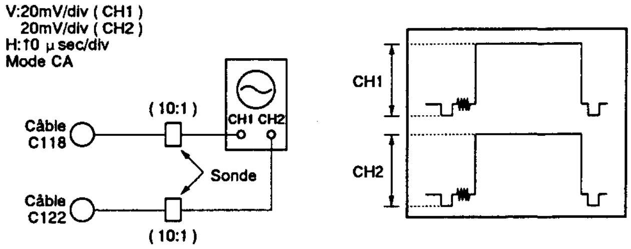
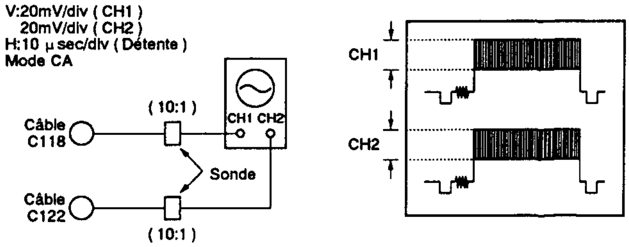
	Réglage	Point de réglage	Equipement de mesure et calibre	Point de mesure	Etat du lecteur
1	Vérification et réglage de correction d'inclinaison	VR607	• Moniteur TV	Indication d'inclinaison sur l'écran du mode d'essai	• Alimentation sur ON • Mode d'essai • Pas de disque installé
2	Réglage approximatif de centrage	Vis de réglage de centrage sur la base d'inclinaison	• Oscilloscope • STD-901 ou STD-902 • Resistance MIX  	CN120 X: Broche ⑨ (TRK ERR) Y: Broche ①+② (TRK SUM)	• Mode d'essai Asservissement d'alignement ouvert Asservissement d'inclinaison ON • La piste la plus intérieure de STD-901 ou STD-902, qui n'est pas en contacte avec la butée mécanique.
3	Réglage de balance de mise au point (1) TRK ERR MAX	VR605	• Oscilloscope • STD-901 ou STD-902	CN120 Broche ⑨ (TRK ERR)	• Mode d'essai Asservissement d'alignement ouvert Asservissement d'inclinaison ON • La piste intérieure de STD-901 ou STD-902
4	Réglage de balance de mise au point (2) RF MAX	VR606	• Oscilloscope • STD-901 ou STD-902	CN120 Broche ③ (RF)	• Mode d'essai Asservissement d'alignement fermé Asservissement d'inclinaison ON • La piste intérieure de STD-901 ou STD-902
5	Réglage d'angle de direction tangentielle	Vis de réglage TAN sur la base d'inclinaison	• Oscilloscope • STD-901 ou STD-902	CN120 Broche ③ (RF)	• Mode d'essai Asservissement d'alignement fermé Asservissement d'inclinaison ON • La piste intérieure de STD-901 ou STD-902
6	Réglage fin de centrage	Vis de réglage de centrage sur la base d'inclinaison	• Oscilloscope • STD-901 ou STD-902	CN120 X: Broche ⑨ (TRK ERR) Y: Broche ①+② (TRK SUM)	• Mode d'essai Asservissement d'alignement ouvert Asservissement d'inclinaison ON • La piste la plus intérieure de STD-901 ou STD-902, qui n'est pas en contacte avec la butée mécanique.
7	Vérification de diaphonie et réglage de correction d'inclinaison	VR607	• Moniteur TV • GGV1003	Ecran de vérification de diaphonie	• Mode d'essai Asservissement d'alignement fermé Asservissement d'inclinaison ON • GGV1003 #115 STILL
	Si la diaphonie est encore apparente après le réglage indiqué dans (7), régler la vis de réglage TAN situé sur le fond de la lecteurà l'aide de la clé hexagonale (type droit, taille: 3 mm) en observant l'arrêt sur image du GGV1003#115 sur l'écran. Ensuite, procéde au réglage dans (6).				

Procédure de réglage	Forme d'onde et schéma de connexion
1. Vérifier que l'indication d'inclinaison sur l'écran du mode d'essai est entre T-6 et T-8. 2. Si l'indication d'inclinaison n'est pas entre T-6 et T-8, Régler VR607 jusqu'à ce que l'indication soit entre T-6 et T-8.	 OFFFF T-7:N TRK-OFF K-FF M-5 S-LD F-0 Régler VR607 tout en ovservant la figure sur l'écran du mode d'essai.
1. Faire glisser le coulisseau pour qu'il n'est pas en contacte avec la butée mécanique située sur la position de l'indication S-IN pour le clisseau. 2. Observer TRK ERR (Xch) et TRK SUM (Ych) en mode X-Y avec l'asservissement TRK ouvert. 3. Tourner la vis de réglage de centrage jusqu'à ce que la figure de Lissajous soit horizontale.	 X:200mV/div Y:50mV/div Mode CA CN120 TRK ERR ⑨ TRK A ② TRK C ① 10k 10k (10:1) (10:1) Mode X-Y X Y Sonde Régler de manière que la figure Lissajous soit horizontale.
1. Observer TRK ERR du CH1 sur l'osccilloscope avec l'asservissement TRK ouvert. 2. Régler VR605 jusqu'à ce que l'amplitude de la forme d'onde soit maximum.	 V:50mV/div H:10msec/div Mode CC CN120 TRK ERR ⑨ Sonde (10:1) CH1 MAX Régler de manière que l'amplitude soit maximum.
1. Fermer l'asservissement TRK et observer RF du CH1 sur l'oscilloscope. 2. Régler VR606 jusqu'à ce que l'amplitude de la forme d'onde soit maximum et que l'enveloppe soit très claire.	 V:20mV/div H:1 μ sec/div Mode CA CN120 RF ③ Sonde (10:1) CH1 MAX Régler de manière que l'amplitude soit maximum et que l'enveloppe soit très claire.
1. Observer RF du CH1 sur l'osccilloscope avec l'asservissement TRK fermé. 2. Régler la vis de réglage TAN jusqu'à ce que l'amplitude de la forme d'onde soit maximum et que l'enveloppe soit très claire.	
Effectuer les réglage fin de centrage en suivant la même procédure que dans "(2) Réglage approximatif de centrage".	 X:200mV/div Y:50mV/div Mode CA CN120 TRK ERR ⑨ TRK A ② TRK C ① 10k 10k (10:1) (10:1) Mode X-Y X Y Sonde Régler de manière que la figure Lissajous soit horizontale.
1. Rechercher l'adresse 115 de GGV1003 et geler l'image. 2. Vérifier la diaphonie. Si la diaphonie apparaît, régler VR607 jusqu'à ce que la diaphonie soit peut apparent.	 Si la diaphonie apparaît, régler jusqu'à ce que la diaphonie soit peut apparente.
	 Lecteur Tournevis Boîtier de paquet, etc. Panneau avant Orifice pour la vis de réglage TAN sur le panneau arrière (Vue du fond)

	Réglage	Point de réglage	Equipement de mesure et calibre	Point de mesure	Etat du lecteur
8	Réglage de gain de boucle d'asservissement de mise au point	VR604	• Oscilloscope • GGV1003 • Oscillateur AF • Resistance (47kΩ)	CN120 X: Broche ⑦ (FCS IN) Y: Broche ⑥ (FCS ERR)	• Mode d'essai Asservissement TRK fermé Asservissement d'inclinaison ON • GGV1003 #15,000 STILL
9	Réglage de gain de boucle d'asservissement d'alignement	VR601	• Oscilloscope • GGV1003 • Oscillateur AF • Resistance (47kΩ)	CN120 X: Broche ⑩ (TRK IN) Y: Broche ⑨ (TRK ERR)	• Mode d'essai Mode arrêt ou l'asservissement TRK fermé Asservissement d'inclinaison ON • GGV1003 #15,000 STILL
10	Réglage de niveau RF	VR601	• Oscilloscope • GGV1003	CN120 Broche ③ (RF)	• Mode d'essai Asservissement TRK fermé Asservissement d'inclinaison ON • GGV1003 #15,000 STILL
11	Réglage de rhytmeur de générateur synchronisation	VC401	• Compteur de fréquence	Câble R558 (Pas de côté de connexion)	• Alimentation ON • Mode arrêt
12	Réglage de REF-H	VC901	• Compteur de fréquence	Câble R667 (IC601 (PM3002), côté de la broche ⑧)	• Alimentation ON • Mode arrêt
13	Réglage de fréquence central VCO	VR481	• Oscilloscope • GGV1007	CH1: Câble C405 CH2: Câble C499	• Mode normal • GGV1007 #15,000 STILL
14	Réglage de niveau vidéo	VR482	• Moniteur TV • Oscilloscope • GGV1007	Borne de sortie vidéo	• Mode normal • GGV1007 #5,251 à #6,000 PLAY

Procédure de réglage	Forme d'onde et schéma de connexion
1. Rechercher l'adresse 15,000 de GGV1003 et geler l'image. 2. Xch: Connecter la résistance (47 kΩ) au canal et FCS IN. Ych: Connecter à FCS ERR. 3. Connecter l'oscillateur AF entre Xch et la résistance de 47 kΩ , et régler VR604 pour que la figure Lissajous soit symmétrique.	 X:200mV/div Y:20mV/div Mode CC Mode X-Y CN120 47k (10:1) FCS IN ⑦ X Y 2,7KHz. 10Vp-p Sonde FCS ERR ⑥ (10:1) Régler de façon que la figure Lissajous soit symmétrique.
1. Xch: Connecter la résistance de 47 kΩ au canal et TRK IN. Ych: Connecter à TRK ERR. 2. Connecter l'oscillateur AF entre Xch et la résistance de 47 kΩ . Noter l'angle d'inclinaison par rapport à la ligne horizontal avec le disque en mode arrêt. 3. Rechercher l'adresse 15,000 de GGV1003 et geler l'image. 4. Placer en mode de lecture (avec l'asservissement TRK fermé, l'inclinaison ON). Régler VR603 de pour que l'angle d'inclinaison de la forme d'onde soit la même que l'angle notée à l'étape 3.	 X:200mV/div Y:10mV/div Mode CC Mode X-Y CN120 47k (10:1) TRK IN ⑩ X Y 4,3KHz. 10Vp-p Sonde TRK ERR ⑨ (10:1) Régler de façon que la figure Lissajous soit symmétrique.
1. Rechercher l'adresse 15,000 de GGV1003 et geler l'image. Observer RF du CH1 sur l'oscilloscope. 2. Régler VR601 pour que l'amplitude RF soit 300mV ± 50mVc-c.	 V:10mV/div H:2msec/div Mode CA CN120 Sonde CH1 RF ③ (10:1) 300mVp-p ± 50mV
Régler la fréquence de l'horloge (17,734475 MHz) ± 100Hz.	 Compteur de fréquence R558 Sonde Q523 (10:1)
Régler la mise au point sur 3,5546875 MHz ± 25Hz.	 Compteur de fréquence R667 Sonde (10:1) ⑧ IC601
Placer la détente dans le CH1 et régler de façon que le centre d'instabilité (jitter) de signal vidéo du CH2 soit 75 µsec (1H + 11 µsec) ± 2 µsec par rapport au signal vidéo du CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 µsec/div (Détente) Mode CA CH1 (10:1) CH1 CH2 CH2 Câble C405 Sonde Câble C499 (10:1) Instbilité causée par l'excentricité 11 µS 75 µS 11 µS
Connecter la résistance de 75Ω à la borne de sortie vidéo (peut-être en connectant au moniteur) et régler de façon que la pointe de synchronization du niveau du signal blanc de 100% soit 1Vc-c ± 5%.	 Sortie vidéo Niveau vidéo 1,0Vp-p ± 5% CH1 Moniteur TV Oscilloscope Gamme de l'oscilloscope V:20mV/div 10 µsec/div (Détente) Mode CA

	Réglage	Point de réglage	Equipement de mesure et calibre	Point de mesure	Etat du lecteur
15	Réglage du niveau vidéo avec retard 1H	VR441	• Oscilloscope • GGV1007	CH1: Câble C443 CH2: Câble C445	• Mode normal • GGV1007 #5,300 STILL
16	Réglage du niveau d'erreur VPS	VR521	• Moniteur TV • GGV1007	Moniteur TV	• Mode normal • GGV1007 #6,100 à #6,750 PLAY (Ecran magenta)
17	Réglage du niveau vidéo MOD	VR102	• Oscilloscope • GGV1007	CH1: Câble C118 CH2: Câble C122	• Mode normal • GGV1007 #5,300 STILL
18	Réglage du sous-porteuse avec retard 1H	VR101	• Oscilloscope • GGV1007	CH1: Câble C118 CH2: Câble C122	• Mode normal • GGV1007 #5,100 STILL

Procédure de réglage	Forme d'onde et schéma de connexion
Régler de façon que les niveaux de la pointe de synchronization du niveau du signal blanc (100%) pour les CH1 et CH2 soient les mêmes.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Trigger) Mode CA (10:1) Câble C443 CH1 CH2 Sonde Câble C445 (10:1) Signal vidéo principal CH1 CH2 Signal vidéo avec retard 1H
Régler de façon que lirrégularité sur l'écran magenta soit minimisée.	 L'irrégularité sur l'écran magenta est minimisée.
Régler de façon que les niveaux de la pointe de synchronization du signal de blanc (100%) pour les CH1 et CH2 soient les mêmes.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div Mode CA (10:1) Câble C118 CH1 CH2 Sonde Câble C122 (10:1) CH1 CH2
Régler de façon que les niveaux du signal chroma du signal magenta pour les CH1 et CH2 soient les mêmes.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Détente) Mode CA (10:1) Câble C118 CH1 CH2 Sonde Câble C122 (10:1) CH1 CH2

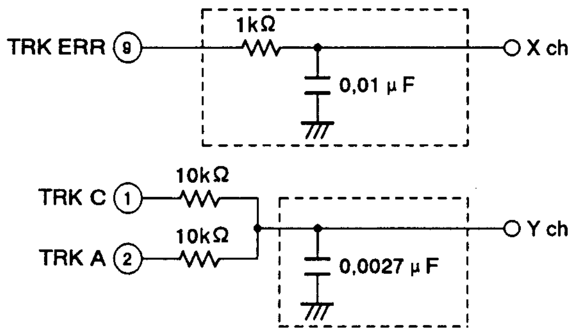
5. AJUSTES

5.1 PRELIMINARIOS

• Instrumentos de Los Ajustes

- Disco de prueba de CD (STD - 901 o STD - 902)
- Disco de prueba de LD (GGV1003 o GGV1007)
- Destornillador con la cabeza de (-) (medio)
- Destornillador con la cabeza de (-) (pequeño)
- Llave inglesa hexagonal (tipo recto, tamaño: 3mm)
- Resistores (10kΩ × 2, 47kΩ)
- Osciloscopio de traza doble (con retraso)
- Oscilador de AF
- Contador de frecuencia
- Monitor de TV
- Filtro de paso bajo

Use los filtros de paso bajo como se ven abajo en el procedimiento de ajuste aproximado del centrado 2., y en el procedimiento de ajuste fino del centrado 6., cuando es difícil observar la forma de onda del señal y ruido.


TRK ERR ⑨
1kΩ
0,01 μF
X ch
TRK C ①
TRK A ②
10kΩ
10kΩ
0,0027 μF
Y ch

• Montaje de Armario Durante el Ajuste del Centrado

La posición de S - IN (sin golpear el taponador) del montaje de armario durante el ajuste del centrado se ilustra abajo.

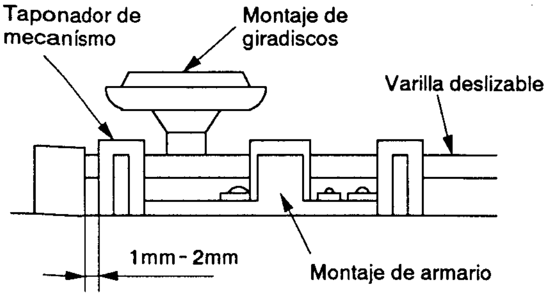

Taponador de mecanísmo
Montaje de giradiscos
Varilla deslizable
1mm - 2mm
Montaje de armario

Fig. 1 Vista desde el lado derecho

• Puntos de Ajuste

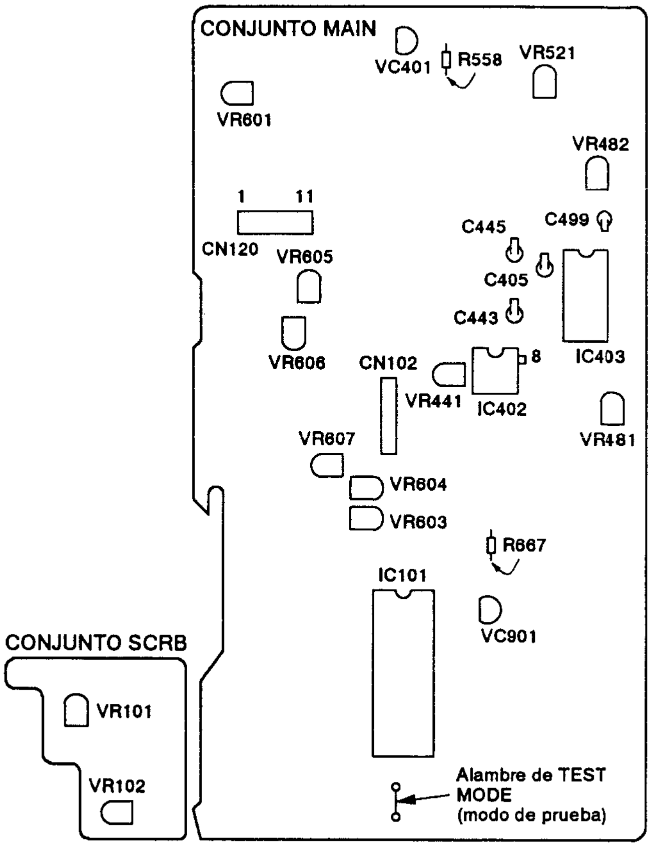
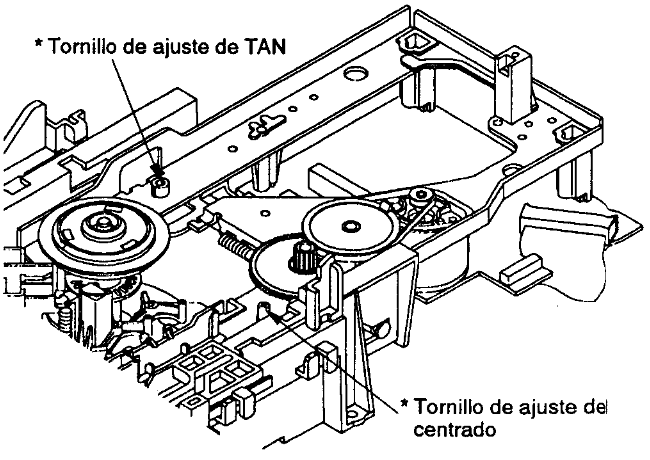

CONJUNTO MAIN
VC401
R558
VR521
VR601
VR482
1
11
CN120
VR605
C445
C499
C405
C443
IC403
VR606
CN102
8
VR441
IC402
VR607
VR481
VR604
VR603
R667
IC101
VC901
CONJUNTO SCRB
VR101
VR102
Alambre de TEST MODE (modo de prueba)

Fig. 2 Sección de los conjuntos MAIN y SCRB


* Tornillo de ajuste de TAN
* Tornillo de ajuste del centrado

* : Porque la gama de ajuste de los tornillos de TAN y del centrado es solamente ± 90 grados. No haga girar los tornillos más alla de esta gama desde el centro.

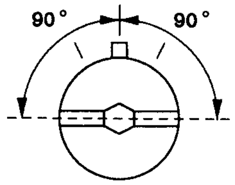


Fig. 3 Sección de la base de inclinación

● Modo de Prueba

1) Para activar el modo de prueba
    1. Mientras que se alimenta, conecte el alambre (Figura 2) a GND por aproximadamente 1 segundo.
    2. Después de comprobar que la pantalla está completamente encendida, desconecte el alambre desde GND.
2) Para cancelar el modo de prueba
    1. Desconecte la alimentación.

● Operaciones de las teclas en el modo de prueba

Condición del reproductor	Operación de las teclas	Funcionamiento	Notas
La bandeja abierta	⏮/⏭ SKIP (Refiérase a nota 1.)	⏮ : Mueve la bandeja en la dirección cerrada y levanta el giradiscos cuando está bajado. ⏭ : Mueve la bandeja en la dirección abierta y baja el giradisco cuando está bajado.	
La bandeja abierta	▶ Avance	Sujetador	
Sujetador	▶ Avance	Haga girar el disco a través del servo TRK Abierto	TRK - OFF
El servo de TRK abierto	▶ Avance	Servo TRK Cerrado	TRK - ON
La inclinación neutral	+MULTI - SPEED	Servo TILT Cerrado	T-☐:ON
TILT ON	- MULTI - SPEED	Neutral TILT	T-☐:N
TILT Neutral u ON	⏮/⏭ SKIP	Ponga el servo TILT en OFF, y se moverá TILT.	T - 1 a T - E
Sujetador	◀◀/▶▶ SCAN	Puede enforzar el sujetador a mover.	S - LD S - CDV S - CD S - IN
Avance	❙❙ PAUSE	Pausa	
Avance	■ STOP	Parada	
Parada	⏏ OPEN	Abierto	
Avance	[+10] ⇩ [0] a [9] ⇩ [▶ PLAY]	Ponga en el modo de entrada de domicilio de SEARCH. Indique el alambre de domicilio de SEARCH con las teclas 0 a 9. Presione la tecla [C] CLEAR si es incorrecto el domicilio designado. Busca el domicilio designado al presionar la tecla PLAY.	

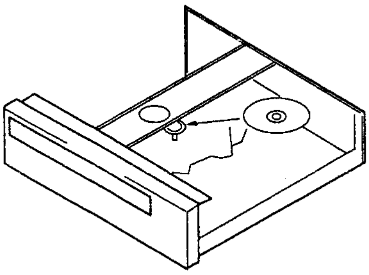
Nota 1: Presione las teclas SKIP (⏮/⏭) después de que la bandeja esté en el estado abierto por presionando la tecla OPEN (⏏). En el estado abierto de la bandeja, si se presiona la tecla PLAY (▶) se cambia en el estado del control de TILT y las teclas SKIP no funcionan correctamente.

• Operacion del Reproductor en el Modo de Prueba

Después de seleccionar el modo de prueba, maneje las teclas sobre el reproductor o sobre la unidad de control remoto.

• REPRODUCCION DE UN DISCO COMPACTO

① Ponga un disco compacto sobre el giradiscos.



② Presione la tecla PLAY (▶)una vez.
(El piñon gemelo se pone en marcha.)

③ Empuje el plato de leva en la dirección de la flecha y espere hasta que se enganche el disco compacto.

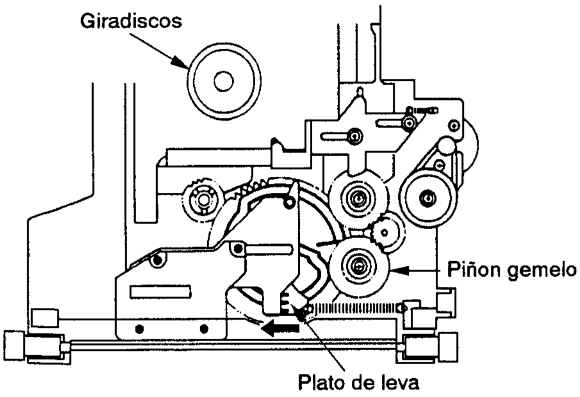
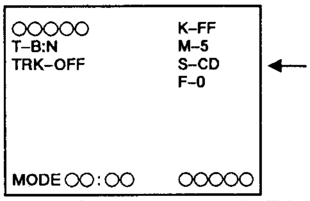


Fig. 4

④ Presione la tecla [◀◀] o [▶▶] hasta que se muestre la visualización "S - CD" en la pantalla.

⑤ Presione la tecla PLAY (▶) y el disco se reproducirá normalmente.

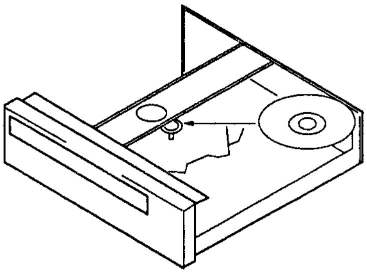


```
OOOOO          K-FF
T-B:N          M-5
TRK-OFF        S-CD   ←
               F-0



MODE OO:OO     OOOOO
```

Visualización en la pantalla de TV

• REPRODUCCION DE UN DISCO LASERICO

① Ponga un disco lasérico sobre el giradiscos.

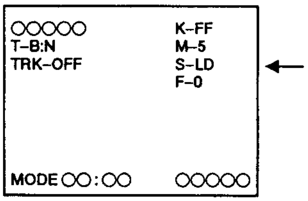


② Presione la tecla PLAY (▶) una vez.
(El piñon gemelo se pone en marcha.)

③ Presione la tecla SKIP REV (|◀◀) para levantar el giradiscos (sección del motor de eje) mientras que presiona el plato de leva (Fig. 4) en la dirección de la flecha. Levántelo en la posición en la que se pone el disco fácilmente sobre el giradiscos.
Si se pone el giradiscos demásiado arriba, rebájelo con la tecla SKIP FWD (▶▶|).

④ Ponga el disco lasérico sobre el giradiscos y presione la tecla PLAY (▶) una vez para enganchar el disco.

⑤ Presione la tecla [◀◀] o [▶▶] hasta que la visualización "S - LD" se muestre en la pantalla.

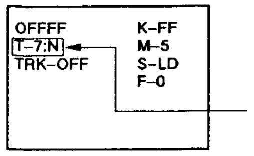
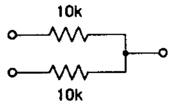
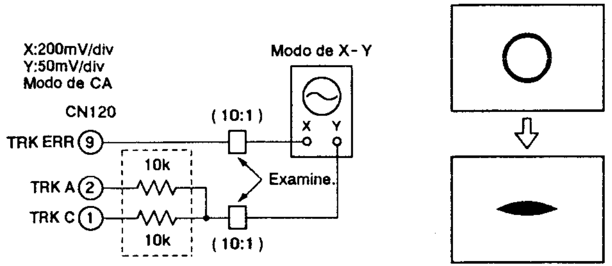
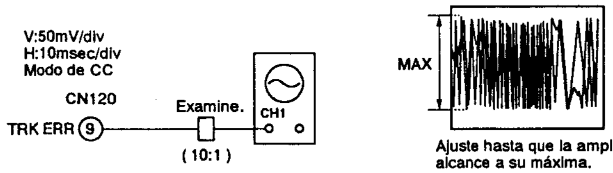
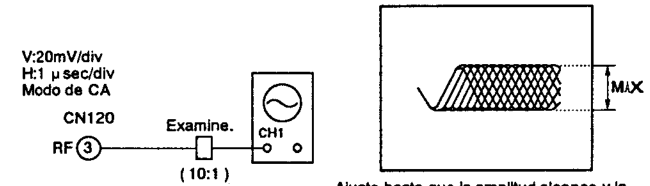
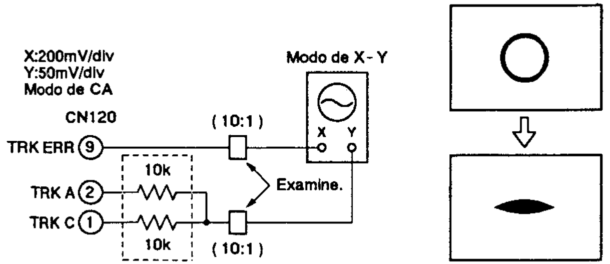
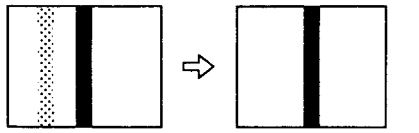
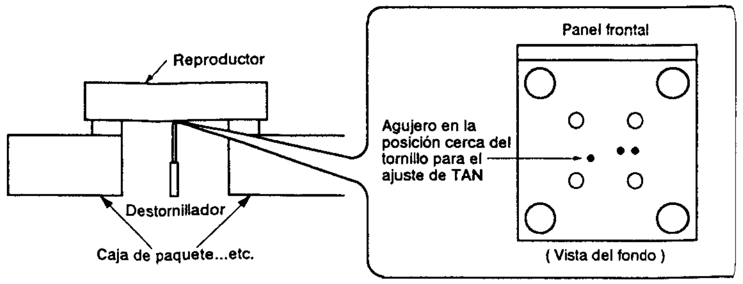


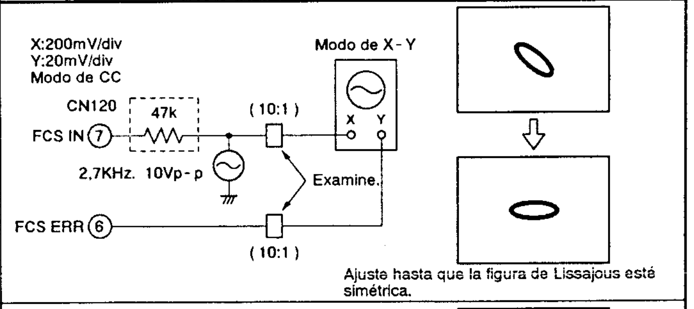
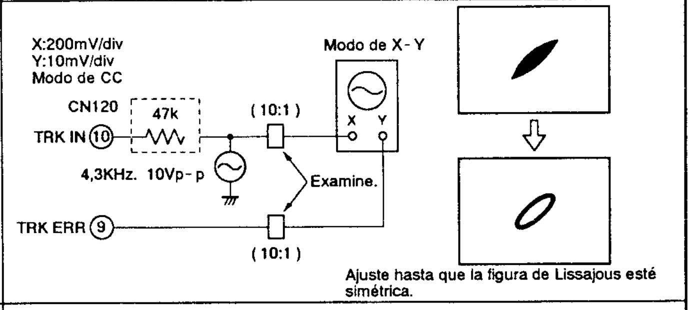
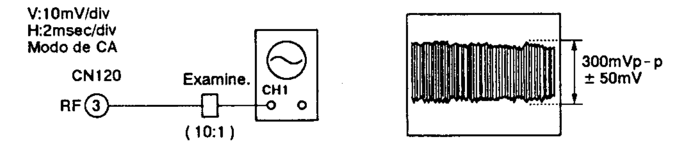
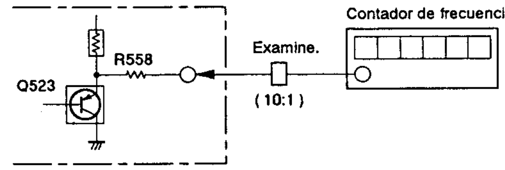
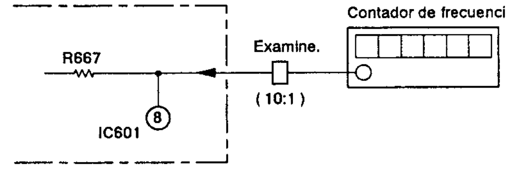
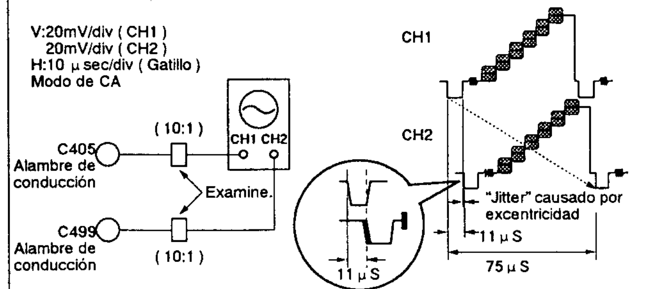
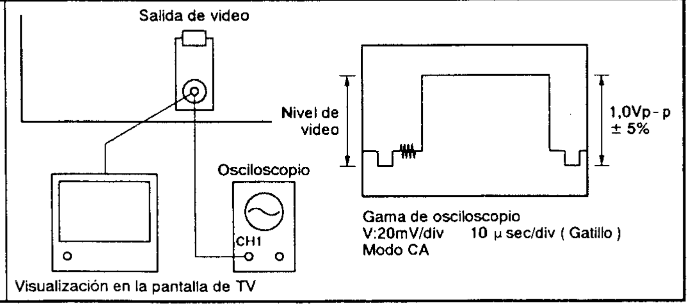
```
OOOOO          K-FF
T-B:N          M-5
TRK-OFF        S-LD   ←
               F-0



MODE OO:OO     OOOOO
```

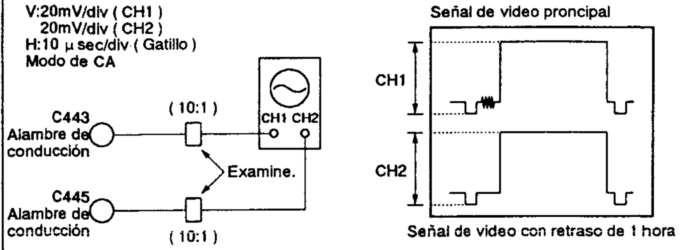
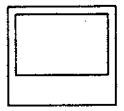
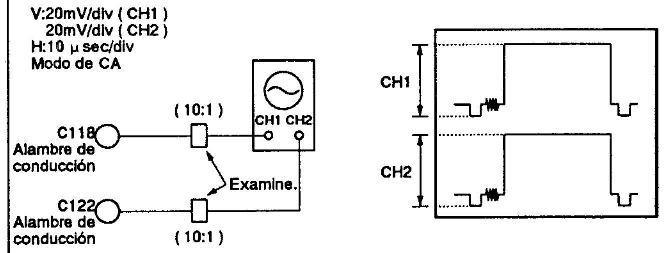
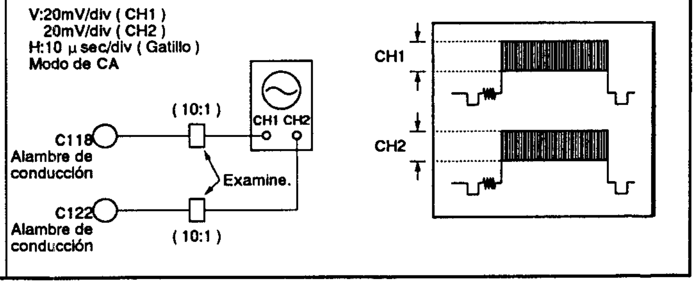
Visualización en la pantalla de TV

⑥ Presione la tecla PLAY (▶) dos veces, y el disco se reproducirá normalmente.

5.2 TABLA DE LOS AJUSTES

	Nombre de ajuste	Punto de ajuste	Equipo y instrumento de medida	Punto de medida	Estado del giradiscos	Procedimiento de ajuste	Forma de onda y diagrama de conexión
1	Comprobación y ajuste de desviación de inclinación	VR607	• Monitor de TV	Indicación de inclinación en la pantalla del modo de prueba	• Alimentación ON • Modo de prueba • No se instala el disco.	1. Compruebe que la indicación sobre la pantalla del modo de prueba está en T-6 a T-8. 2. Si la indicación no se quede en T-6 a T-8, ajuste VR607 hasta que la indicación de inclinación alcance a T-6 a T-8.	 OFFFF T-7:N TRK-OFF K-FF M-5 S-LD F-0 Ajuste VR605 mientras observando la figura en la pantalla del modo de comprobación.
2	Ajuste aproximado del centrado	Tornillo de ajuste del centrado de base de inclinación	• Osciloscopio • STD-901 o STD-902 • Resistor de MIX 	CN120 X: ⑨ Clavija (TRK ERR) Y: ①+② Clavija (TRK SUM)	• Modo de comprobación Servo de TRK: Abierto Servo de inclinación: ON • Pista más interior de STD-901 o STD-902 que no se toca al taponador	1. Mueva el deslizador hasta que no toque al taponador mecánico en la posición indicada como S-IN. 2. Observe TRK ERR (canal X) y TRK SUM (canal Y) en el modo de X-Y mientras que está abierto el servo de TRK. 3. Haga girar el tornillo para el ajuste del centrado hasta que la figura de Lissajous esté horizontal.	 X:200mV/div Y:50mV/div Modo de CA CN120 TRK ERR ⑨ TRK A ② TRK C ① 10k 10k (10:1) (10:1) Modo de X-Y X Y Examine. Ajuste hasta que la figura de Lissajous esté horizontal.
3	Ajuste de equilibrio de foco (1) TRK ERR MAX	VR605	• Osciloscopio • STD-901 o STD-902	CN120 ⑨ Clavija (TRK ERR)	• Modo de prueba Servo de TRK: Abierto Servo de inclinación: ON • Pista más interior de STD-901 o STD-902	1. Observe TRK ERR en CH1 del osciloscopio mientras que está abierto el servo de TRK. 2. Ajuste VR605 hasta que la forma de onda de la amplitud alcance a su máxima.	 V:50mV/div H:10msec/div Modo de CC CN120 TRK ERR ⑨ Examine. (10:1) CH1 MAX Ajuste hasta que la amplitud alcance a su máxima.
4	Ajuste de equilibrio de foco (2) RF MAX	VR606	• Osciloscopio • STD-901 o STD-902	CN120 ③ Clavija (RF)	• Modo de prueba Servo de TRK: Cerrado Servo de inclinación: ON • Pista más interior de STD-901 o STD-902	1. Cierre el servo de TRK y observe RF en CH1 del osciloscopio. 2. Ajuste VR606 hasta que la forma de onda de la amplitud alcance a su máxima y se quede muy clara la cubierta.	 V:20mV/div H:1 μsec/div Modo de CA CN120 RF ③ Examine. (10:1) CH1 MAX Ajuste hasta que la amplitud alcance y la cubierta se quede muy clara.
5	Ajuste del ángulo del sentido tangencial	Tornillo de ajuste de TAN de la base de inclinación	• Osciloscopio • STD-901 o STD-902	CN120 ③ Clavija (RF)	• Modo de prueba Servo de TRK: Cerrado Servo de inclinación: ON • Pista más interior de STD-901 o STD-902	1. Observe RF en CH1 del osciloscopio mientras que está cerrado el servo de TRK. 2. Ajuste el tornillo para el ajuste de TAN hasta que la forma de onda de la amplitud alcance a su máxima y se quede muy clara la cubierta.	
6	Ajuste fino del centrado	Tornillo de ajuste del centrado de base de inclinación	• Osciloscopio • STD-901 o STD-902	CN120 X: ⑨ Clavija (TRK ERR) Y: ①+② Clavija (TRK SUM)	• Modo de prueba Servo de TRK: Abierto Servo de inclinación: ON • Pista más interior de STD-901 o STD-902 que no toca al taponador	Haga el ajuste fino del centrado siguiendo el procedimiento mismo que se explica en la sección "(2) Ajuste aproximado del centrado".	 X:200mV/div Y:50mV/div Modo de CA CN120 TRK ERR ⑨ TRK A ② TRK C ① 10k 10k (10:1) (10:1) Modo de X-Y X Y Examine. Ajuste hasta que la figura de Lisajous esté horizontal.
7	Comprobación de diafonía y ajuste de desviación de inclinación	VR607	• Monitor de TV • GGV1003	Pantalla de comprobación de diafonía	• Modo de prueba Servo de TRK: Cerrado Servo de inclinación: ON • GGV1003 Número 115 STILL	1. Busque el domicilio 115 de GGV1003 y establézcalo. 2. Compruebe la diafonía. Si la disafonía está pronunciada, ajuste VR607 hasta que la diafonía no esté notable.	 Si la diafoía está pronunciada, ajústela hasta que no esté notable.
	Cuando la diafonía todavía está notable aun después del ajuste en (7), use una llave inglesa hexagonal (tipo recto, tamaño: 3mm) para ajustar el tornillo para el ajuste de TAN situado en el fondo del reproductor observando la pantalla de GGV1003 número 115 STILL. Después, haga los procedimientos desde (6).						 Reproductor Destornillador Caja de paquete...etc. Panel frontal Agujero en la posición cerca del tornillo para el ajuste de TAN (Vista del fondo)

	Nombre de ajuste	Punto de ajuste	Equipo y instrumento de medida	Punto de medida	Estado del giradiscos	Procedimiento de ajuste	Forma de onda y diagrama de conexión
8	Ajuste de la ganancia del bucle de servo de foco	VR604	• Osciloscopio • GGV1003 • Oscilador de AF • Resistor (47kΩ)	CN120 X: ⑦ Clavija (FCS IN) Y: ⑥ Clavija (FCS ERR)	• Modo de prueba Servo de TRK: Cerrado Servo de inclinación: ON • GGV1003 Número 15000 STILL	1. Busque el domicilio 15000 de GGV1003 y establézcalo. 2. Canal X: Conecte el resistor (47 kΩ) al canal y a FCS IN. Canal Y: Conecte a FCS ERR. 3. Conecte el oscilador AF entre el canal X y el resistor de 47 kΩ , y ajuste VR604 hasta que la figura de Lissajous esté simétrica.	 X:200mV/div Y:20mV/div Modo de CC Modo de X - Y CN120 47k (10:1) FCS IN ⑦ X Y 2,7KHz. 10Vp-p Examine. FCS ERR ⑥ (10:1) Ajuste hasta que la figura de Lissajous esté simétrica.
9	Ajuste de la ganancia del bucle de servo de seguimiento	VR601	• Osciloscopio • GGV1003 • Oscilador de AF • Resistor (47kΩ)	CN120 X: ⑩ Clavija (TRK IN) Y: ⑨ Clavija (TRK ERR)	• Modo de prueba Modo de parada o Servo de TRK: Cerrado Servo de inclinación: ON • GGV1003 Número 15000 STILL	1. Canal X: Conecte el resistor de 47 kΩ y a TRK IN. Canal Y: Conecte a TRK ERR. 2. Conecte el oscilador de AF entre el canal X y el resistor de 47 kΩ y anote el ángulo de inclinación hasta la línea horizontal en el estado de parada. 3. Busque el domicilio 15000 de GGV1003 y establézcalo. 4. Ponga en el modo de PLAY (Servo de TRK cerrado, y TILT ON.) Ajuste VR603 para que el ángulo de inclinación de la forma de onda esté mismo que el ángulo de inclinación anotado en el procedimiento 3.	 X:200mV/div Y:10mV/div Modo de CC Modo de X - Y CN120 47k (10:1) TRK IN ⑩ X Y 4,3KHz. 10Vp-p Examine. TRK ERR ⑨ (10:1) Ajuste hasta que la figura de Lissajous esté simétrica.
10	Ajuste del nivel de RF	VR601	• Osciloscopio • GGV1003	CN120 ③ Clavija (RF)	• Modo de prueba Servo de TRK: Cerrado Servo de inclinación: ON • GGV1003 Número 15000 STILL	1. Busque el domicilio 15000 de GGV1003 y establézcalo. Observe RF en CH1 del osciloscopio. 2. Ajuste VR601 hasta que la amplitud de RF esté 300 mV ± 50mVp-p.	 V:10mV/div H:2msec/div Modo de CA CN120 RF ③ Examine. (10:1) CH1 300mVp-p ± 50mV
11	Ajuste del reloj degenerador para la señal sincrónica	VC401	• Contador de frecuencia	R558 Alambre de conducción (No el lado de conexión)	• Alimentación ON • Modo de parada	Ajuste la frecuencia del reloj (17.734475MHz) ± 100Hz.	 Contador de frecuencia R558 Q523 Examine. (10:1)
12	Ajuste de REF-H	VC901	• Contador de frecuencia	R667 Alambre de conducción (IC601 (PM3002) ⑧ Lado de clavija)	• Alimentación ON • Modo de parada	Ajuste FCS (3,5546875 MHz) ± 25 Hz.	 Contador de frecuencia R667 IC601 ⑧ Examine. (10:1)
13	Ajuste de frecuencia central de VCO	VR481	• Osciloscopio • GGV1007	CH1: C405 Alambre de conducción CH2: C499 Alambre de conducción	• Modo normal • GGV1007 Número 15000 STILL	Ponga un gatillo en el canal 1 y ajuste hasta que el centro de la fluctuación de la señal del canal 2 esté 75 μsegundo (1H + 11 ± segundo) ± 2 μsegundo comparado con la señal de video del canal 1.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Gatillo) Modo de CA (10:1) CH1 CH2 C405 Alambre de conducción Examine. C499 Alambre de conducción (10:1) CH1 CH2 "Jitter" causado por excentricidad 11 μ S 75 μ S 11 μ S
14	Ajuste del nivel de video	VR482	• Monitor de TV • Osciloscopio • GGV1007	Terminal de la salida de video	• Modo normal • GGV1007 Números 5251 a 6000 PLAY	Conecte un resistor de 75 Ω al terminal de salida de VIDEO (posible por conectando al monitor) y ajuste hasta que la microplaqueta sincrónica al nivel blanco de 100 % esté 1 Vp-p 5 % a la señal blanca (100 %).	 Salida de video Nivel de video Osciloscopio CH1 1,0Vp-p ± 5% Gama de osciloscopio V:20mV/div 10 μ sec/div (Gatillo) Modo CA Visualización en la pantalla de TV

	Nombre de ajuste	Punto de ajuste	Equipo y instrumento de medida	Punto de medida	Estado del giradiscos	Procedimiento de ajuste	Forma de onda y diagrama de conexión
15	Ajuste del nivel de video 1H DLY	VR441	• Osciloscopio • GGV1007	CH1: C443 Alambre de conducción CH2: C445 Alambre de conducción	• Modo normal • GGV1007 Número 5300 STILL	Ajuste hasta que la microplaqueta sincrónica al nivel blanco de 100 % en la señal blanca (100%) esté la misma que en CH1 y CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Gatillo) Modo de CA C443 Alambre de conducción (10:1) CH1 CH2 Examine. C445 Alambre de conducción (10:1) Señal de video proncipal CH1 CH2 Señal de video con retraso de 1 hora
16	Ajuste del nivel de error de VPS	VR521	• Monitor de TV • GGV1007	Monitor de TV	• Modo normal • GGV1007 Números 6001 a 6750 PLAY (Pantalla majenta)	Ajuste hasta que la irregularidad en color en la pantalla majenta se disminuya.	 La irregularidad en color se disminuya.
17	Ajuste del nivel de video de MOD	VR102	• Osciloscopio • GGV1007	CH1: C118 Alambre de conducción CH2: C122 Alambre de conducción	• Modo normal • GGV1007 Número 5300 STILL	Ajuste hasta que la microplaqueta sincrónica al nivel blanco de 100% en la señal blanca (100%) esté la misma que en CH1 y CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div Modo de CA (10:1) CH1 CH2 C118 Alambre de conducción Examine. C122 Alambre de conducción (10:1) CH1 CH2
18	Ajuste de sub portador con retraso de 1H (hora)	VR101	• Osciloscopio • GGV1007	CH1: C118 Alambre de conducción CH2: C122 Alambre de conducción	• Modo normal • GGV1007 Número 5100 STILL	Ajuste hasta que la señal de croma en la señal majenta esté misma en CH1 y CH2.	 V:20mV/div (CH1) 20mV/div (CH2) H:10 μ sec/div (Gatillo) Modo de CA (10:1) CH1 CH2 C118 Alambre de conducción Examine. C122 Alambre de conducción (10:1) CH1 CH2

6. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

6.1 PD0135A1 (IC101)

• Mechanism control IC

● Pin Function

No.	Pin Name	I/O	Function
1	VCC	–	Power supply connection pin. Set to 5V ± 10%.
2	DIRECT	O	CD DIRECT video system power OFF signal output pin "H"=video system power OFF, "L"=ON
3	N.C.	–	Not used.
4	LD ON	O	Laser video ON/OFF switching signal output H: ON, L: OFF
5	TGH	O	Tracking operation control signal output pin The control signal supports ON/OFF of the tracking servo-mechanism operation. "H"=OFF, "L"=ON
6	SLDR POS	I	Pickup position detection switch input pin (analog signal) Divides the resistance among the switches, reads the value of the A/D input, and detects the position.
7	FREQ DET	I	RF detection signal input pin (analog signal) Inputs the A/D conversion of the RF detection output and is used in the spindle luff servo-mechanism. Voltage and frequency are proportional.
8	TBAL ERR	I	Tracking balance error signal input pin (analog signal) Signal is A/D converted and is input as the tracking offset control.
9	TILT ERR	I	Tilt sensor output signal input pin (analog signal) Inputs (0 to 5V) the tilt sensor output amplified to a 40 to 50dB signal. The signal is A/D converted and is input as the tilt sensor control. Controls the tilt motor until the signal is 2.5V.
10	CAV	O	CAV/CLV switching signal output pin "H"=CAV, "L"=CLV Connected to pin 6 of PA5013A and used as a VIDEO NR switching signal.
11	GFS	I	CD (EFM signal) frame lock signal input pin Connected to pin 12 of the EFM decoder IC: CXD2500AQ. "H"=Lock, "L"=Unlock GFS is an abbreviation for Good Frame Sync.
12	TBAL DRV	O	Tracking offset control signal output pin Outputs the tracking offset after PWM and is used in auto tracking offset. Cycle: 910 μsec; 3-value control H, L, Z.
13	SQ2	O	Analog audio switching signal output pin 2/R Squelch: H
14	SQ1	O	Analog audio switching signal output pin 1/L Squelch: H When in digital audio mode, the signal is output through the control of the EFM decoder IC: CXD2500AQ.
15	SI2	I	EFM decoder IC: CXD2500AQ subcode input pin Reads the subcodes of SCK2 and the signal.
16	XLAT2	O	EFM decoder IC: CXD2500AQ control latch signal output pin Sends the control command using SO3 and 2500CLK.
17	SCK2	O	EFM decoder IC: CXD2500AQ subcode read clock signal output pin Sets the clock to 96 and reads the subcode.
18	TILT DRV	O	Tilt control signal output pin Outputs the tilt drive after PWM and is used in tilt servo-mechanism.
19	S-FTOM	I	Input pin of data from the mode control IC Serial Used with the data signal to the carriage generating IC.
20	S-MTOM	O	Serial data output to the mode control IC Serial
21	SCK1	I/O	Clock for serial communication with the mode control IC In the input mode except during serial communication with the mode control IC Used with the clock signal to the carriage generating IC
22	SENS	I	SENS signal input pin All of the following signals from 2500 are switched and are output to the signal: SEIN, FZC, A.S, TZC, XBUSY, FOK, GFS, COMP, COUT and OV64.
23	SCOR	I	Subcode SYNC signal input pin Inputs the subcode signal from the EFM decoder IC: CXD2500AQ when the signal is "H". Supervises the disc playback depending on the presence of the signal.
24	N.C.	–	Not used.
25	SHAKE	I/O	Pin of hand shake signal for data communication with the mode control IC This pin is a bi-directional data path which sends the data transfer timing through the I/O mode switching of the respective microcomputers.
26	XPBV	I	LD/CDV playback V-SYNC signal input pin IC basically operates in sync hronization (rising and leading edges) with the signal. Setting the signal as standard in the special CAV playback mode, generates jump timing. "L"=V-SYNC ongoing
27	CN VSS	–	GND for A/D conversion
28	XRESET	I	Reset signal input pin "L"=Reset, "H"=Cancel reset
29	XTAL IN	I	9MHz clock generation input pin
30	XTAL OUT	O	9MHz clock generation output pin
31	FTS CLK	O	ϕ external clock output pin Outputs a clock which is one-fourth of the master clock (9MHz) used in the FTS IC: PM3003. 2.25MHz Does not output when using an FTS IC other than PM3003
32	VSS	–	GND
33	SW1	I	Loading/tilt position detection switch input pin
34	SW2	I	Loading/tilt position detection switch input pin
35	SW3	I	Loading/tilt position detection switch input pin
36	N.C.	I	Not used Processing needed when used for input
37	FG	I	Spindle motor-FG signal input pin 24 pulses per signal Divided into thirds and used inside the microcomputer.
38	DATA	I	Input pin for Phillips code decoder in the mechanism controller
39	XPBH	I	Playback H-SYNC input for Phillips code decoder
40	XPBV	I	Playback V-SYNC input for Phillips code decoder
41	GI. MIRR	O	False MIRR signal output pin to jump 1 track for LD.
42	N.C.	–	Not used
43	N.C.	–	Not used
44	MUTE	O	Audio system audio mute control output pin "H"=MUTE ON, "L"=MUTE OFF
45	16:9	O	16:9 switching signal output pin 16:9 "H", 4.3 (Nomal) "L"
46	T LATCH	O	DAC & Digital PD2026 serial control latch signal output pin
47	N.C.	–	Not used
48	N.C.	–	Not used
49	N.C.	–	Not used
50	2500CLK	O	2500 command clock signal output pin The commands for 2500 are the following: 2500CLK; SO3 and XLAT2.
51	RFCORR	O	RF correction switching signal output pin "H"=gain up. Increases gain (# 8000 to # 8100) within the CAV.

No.	Pin Name	I/O	Function
52	SCAN CONT	O	TBC control signal output pin H: multi-track jump ongoing, L: others
53	CD	O	CD/LD switching signal output pin H: CD, CDV-A, L: LD, CDV-V
54	ACC CONT	O	Spindle acceleration signal output pin H=acceleration, L=deceleration, Z=CD, stop and play
55	GPWM	O	Spindle gain switching duty pulse signal output pin CLV inner circumference: L, outer circumference: H, CAV: L, CDV: H
56	J. TRIG	O	Track jump signal output pin Used for single track jump H: start of track, L: others, Width of "H": approx. 20 μsec
57	SCK3	O	Serial 3 clock signal output pin Reads the leading edge "H"=within 2 μsec, "L"=within 20 μsec
58	SO3	O	Serial 3 data signal output pin With the serial signal as the common signal, divides the signals into three types of latch signals (XLAT3, XLAT2 and T LATCH). LSB first
59	XLATCH3	O	Spindle servo-mechanism IC latch signal output pin
60	J F/R	O	CLV V-SYNC scan mode signal output pin
61	VSQ	O	Video output switching signal output pin "H"=squelch, "L"=playback video
62	XPLAY	I	Usually, held "L" in PLAY mode.
63	N.C.	–	Not used.
64	XSPLOCK	I	Spindle lock signal input pin L: lock, H: unlock

6.2 PD3214A (IC201)

• Mode control IC

● Pin Function

No.	Pin Name	Signal name	I/O	Function
1	PO4/AN4	N.C.	I	Not used
2	PO5/AN5	N.C.	I	Not used
3	PO6/AN6	N.C.	I	Not used
4	PO7/AN7	N.C.	I	Not used
5	AVss	AVss	–	Connected to standard power supply (Vss) for A/D conversion
6	TEST	TEST	I	Test pin Connected to Vss
7	X2	X2	O	Subclock Release
8	X1	X1	I	Subclock Connected to Vcc
9	Vss	Vss	–	Ground
10	OSC1	OSC1	I	System clock Connects 8MHz ceramic lock
11	OSC2	OSC2	I	System clock Connects 8MHz ceramic lock
12	$\overline{\text{RESET}}$	$\overline{\text{RESET}}$	I	Reset
13	P1O/IRQ0	SHAKE	I/O	Communication timing clock with mechanism control
14	P11/$\overline{\text{IRP1}}$	SEL IR	I	Remote control signal (including SR)
15	P12/$\overline{\text{IRQ2}}$	W.D.F	O	For watchdog timer pluse output
16	P13/$\overline{\text{IRQ3}}$	POWER On	O	Power ON Power OFF
17	P14/IRQ4	N.C.	O	Not used
18	P15/$\overline{\text{IRQ5}}$	N.C.	O	Not used
19	P16/EVENT	N.C.	I	Not used
20	P33/FS27	N.C.	O	Not used
21	P32/FS26	N.C.	O	Not used
22	P31/FS25	N.C.	O	Not used
23	P30/FS24	STANDBY LED	O	Standby LED drive output
24	P47/FS23	N.C.	O	Not used
25	P46/FS22	N.C.	O	Not used
26	P45/FS21	N.C.	O	Not used
27	P44/FS20	N.C.	O	Not used
28	P43/FS19	seg l/KS3	O	FL segment l output and key scan 3 output
29	P42/FS18	seg k/KS2	O	FL segment k output and key scan 2 output
30	P41/FS17	seg j/KS1	O	FL segment j output and key scan 1 output
31	P40/FS16	seg i/KS0	O	FL segment i output and key scan 0 output
32	P50/FS15	seg h	O	FL segment h output
33	P51/FS14	seg g	O	FL segment g output
34	P52/FS13	seg f	O	FL segment f output
35	P53/FS12	seg e	O	FL segment e output

No.	Pin Name	Signal name	I/O	Function
36	P54/FS11	seg d	O	FL segment d output
37	P55/FS10	seg c	O	FL segment c output
38	P56/FS9	seg b	O	FL segment b output
39	P57/FS8	seg a	O	FL segment a output
40	P17/Vdisp	-30V	–	FL drive power supply
41	P60/FD0/FS7	G9	O	FL grid 9 output
42	P61/FD1/FS6	G8	O	FL grid 8 output
43	P62/FD2/FS5	G7	O	FL grid 7 output
44	P63/FD3/FS4	G6	O	FL grid 6 output
45	P64/FD4/FS3	G5	O	FL grid 5 output
46	P65/FD5/FS2	G4	O	FL grid 4 output
47	P66/FD6/FS1	G3	O	FL grid 3 output
48	P67/FD7/FS0	G2	O	FL grid 2 output
49	P70/FD8	G1	O	FL grid 1 output
50	P71/FD9	N.C.	O	Not used
51	P72/FD10	N.C.	O	Not used
52	P73/FD11	N.C.	O	Not used
53	P74/FD12	N.C.	O	Not used
54	P75/FD13	D.CD LED	O	DIRECT CD LED drive output
55	P76/FD14	S-SCAN	I/O	SHUTTER SCAN output
56	P77/FS15	N.C.	O	Not used
57	Vcc	Vcc	–	Power supply
58	P80	KIN0	I	Key input 0
59	P81	KIN1	I	Key input 1
60	P82	KIN2	I	Key input 2
61	P83	KIN3	I	Key input 3
62	P84	KIN4	I	Key input 4
63	P85	KIN5	I	Key input 5
64	P86	KIN6	I	Key input 6
65	P87	N.C.	–	Not used
66	P90/PWM	SYNCRO OUT	O	SYNCHRO REC output
67	P91/SCK1	XSCK	I/O	Communication clock with mechanism control/OSD
68	P92/SI1	SI	I	Receive data from mechanism control
69	P93/SO1	SO	O	Send data to mechanism control/OSD
70	P94/SCK2	XRESET	O	RESET output from other than mechanism control/OSD
71	P95/S12/CS	XSC	O	OSD chip select
72	P96/SO2	SYNCRO IN	I	SYNCHRO REC input
73	P97/UD	1700/700	I	Switching input for 1700/700 H: 1700, L: 700
74	PA0	N.C.	O	Not used
75	PA1	N.C.	O	Not used
76	AVcc	AVcc	–	Connection to Vcc of standard power supply for A/D conversion
77	P00/AN0	N.C.	O	Not used
78	P01/AN1	N.C.	O	Not used
79	P02//AN2	N.C.	O	Not used
80	P03/AN3	N.C.	O	Not used

7. FOR CLD - 700 / HEZ AND HB

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ◉ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

CONTRAST OF MISCELLANEOUS PARTS

CLD - 700 / HEZ, HB and CLD - 1700 / HEZ have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		CLD - 1700 / HEZ	CLD - 700 / HEZ	CLD - 700 / HB	
◉	MOTHER assembly	VWM1276	VWM1264	VWM1264	
NSP	MAIN assembly	VWX1123	VWX1116	VWX1116	
NSP	AUDIO assembly	VWX1124	VWX1117	VWX1117	
◉	FLKB assembly	VWM1278	VWM1277	VWM1277	
NSP	FLKY assembly	VWG1336	VWG1335	VWG1335	
NSP	HEPB assembly	VWV1254	• • • • •	• • • • •	
◉	SYPS assembly	VWR1146	VWR1146	VWR1147	
◉	SCRB assembly	VWV1248	VWV1255	VWV1255	
⚠	AC power cord	VDG1028	VDG1028	VDG1029	
	Euro scart cable	VDE1027	• • • • •	• • • • •	
	Video cable	• • • • •	VDE-056	VDE-056	
	Packing case	VHG1228	VHG1226	VHG1226	
NSP	Rear panel	VNA1278	VNA1276	VNA1277	
	Snap plate	VNE1102	• • • • •	• • • • •	
	Jack holder	VNE1811	• • • • •	• • • • •	
	Volume knob	VNK2003	• • • • •	• • • • •	
	Operating instructions (English / French / German / Italian)	VRE1010	VRE1011	• • • • •	
	Operating instructions (Dutch / Swedish / Spanish / Portuguese)	VRF1017	VRF1018	• • • • •	
	Operating instructions (English)	• • • • •	• • • • •	VRB1071	
	Front panel assembly	VXA1867	VXA1866	VXA1866	
	Remote control unit (CU-CLD077)	VXX1758	• • • • •	• • • • •	
	Remote control unit (CU-CLD072)	• • • • •	VXX1751	VXX1751	
	Battery cover	VNK1293	PZN1010	PZN1010	
NSP	Caution card (UC)	• • • • •	• • • • •	VRM1026	
NSP	Caution card (EW)	VRM1027	VRM1027	• • • • •	

LIST OF ASSEMBLIES (FOR CLD-700/HEZ AND HB)

FLKB assembly
├ PSWB assembly
└ FLKY assembly

MAIN assembly

VWX1116 and VWX1123 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		VWX1123	VWX1116	
	D102, D103	1SS254	• • • • •	
	C122	CKSQYF103Z50	• • • • •	
	C124, C125	CCSQCH101J50	• • • • •	
	C567	• • • • •	CEAS470M16	
	R121	RS1/10S473J	• • • • •	
	R150, R151	RS1/10S221J	• • • • •	
	R562	• • • • •	RD1/6PM101J	
	R564	RD1/6PM102J	RD1/6PM101J	
	JA3, JA4 (JACK/12V)	PKN1004	• • • • •	

AUDIO assembly

VWX1117 and VWX1124 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		VWX1124	VWX1117	
	IC202	NJM78L08A	• • • • •	
	IC208, IC211	BA15218	• • • • •	
	IC210	NJM79L08A	• • • • •	
	Q203, Q210, Q212, Q213	DTA124EK	• • • • •	
	D202, D205 - D207	1SS254	• • • • •	
	D210	ERA83 - 006	• • • • •	
	F301 - F303	VTH1016	• • • • •	
	C205	CEAS470M16	• • • • •	
	C207, C279	CEAS471M10	• • • • •	
	C210	CKSQYF104Z25	• • • • •	
	C264, C265	CFTXA152J50	• • • • •	
	C266, C267	CKSQYB682K50	• • • • •	
	C268, C269	CFTXA102J50	• • • • •	
	C272, C273	CEAS470M10	• • • • •	
	C278, C282	• • • • •	CFTXA332J50	
	C322	CKSQYF473Z25	• • • • •	
	R204, R289, R294	RS1/10S102J	• • • • •	
	R206	RS1/10S222J	• • • • •	
	R212, R213, R220, R221	RD1/6PM470J	• • • • •	
	R214, R219, R224	RS1/10S103J	• • • • •	
	R215, R223	RS1/10S682J	• • • • •	
	R222	RD1/6PM103J	• • • • •	
	R233, R286	RS1/10S471J	• • • • •	
	R234 (4.7 Ω)	DCN1001	• • • • •	
	R247 - R250	• • • • •	RS1/10S223J	
	R252, R254, R256, R258	RS1/10S223J	• • • • •	
	R263 - R268	RD1/6PM102J	• • • • •	
	R271, R272	RD1/6PM222J	• • • • •	
	R322, R323	RS1/10S822J	RS1/10S472J	
	JA8 (OPTICAL OUTPUT JACK)	TOTX178	• • • • •	

SCRB assembly

VW1255 and VWV1248 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		VWV1248	VWV1255	
	IC101	TC74HC74AP	• • • • •	
	IC102	TC74HC00AP	• • • • •	
	IC103	BU4053B	• • • • •	
	Q101-Q110	2SC1740S	• • • • •	
	L101, L102	LFA120K	• • • • •	
	L103, L104	LAU8R2J	• • • • •	
	L105	LAU330J	• • • • •	
	F101	VTF1034	• • • • •	
	F102	VTF1011	• • • • •	
	C101, C103, C120-C123, C126, C127, C129, C158	CEAS470M10	• • • • •	
	C102, C104-C108, C111, C112, C125, C128, C130	CKPUYY103N16	• • • • •	
	C109	CCCCH100D50	• • • • •	
	C110	CCCCH270J50	• • • • •	
	C113, C114	CKCYB681K50	• • • • •	
	C117-C119	CEANP220M10	• • • • •	
	C155	CEAS100M50	• • • • •	
	VR101	VRTB6VS471	• • • • •	
	VR102	VRTB6VS472	• • • • •	
	R101, R102, R124, R125, R127	RD1/6PM102J	• • • • •	
	R103, R107, R118, R122, R130	RD1/6PM101J	• • • • •	
	R104, R108, R110, R111, R119, R123, R131	RD1/6PM222J	• • • • •	
	R105, R106	RD1/6PM391J	• • • • •	
	R109	RD1/6PM122J	• • • • •	
	R112, R113, R120, R121	RD1/6PM223J	• • • • •	
	R114	RD1/6PM333J	• • • • •	
	R115	RD1/6PM153J	• • • • •	
	R116, R117	RD1/6PM471J	• • • • •	
	R126	RD1/6PM561J	• • • • •	
	R128, R132-R134	RD1/6PM472J	• • • • •	
	R129	RD1/6PM221J	• • • • •	
	R135	RD1/6PM470J	• • • • •	
	R136, R137	RD1/6PM121J	• • • • •	
	R138	RD1/6PM2R2J	• • • • •	
	DL101	DTF1033	• • • • •	

FLKY assembly

Although VWG1335 and VWG1336 are different in part number, they consist of the same components.

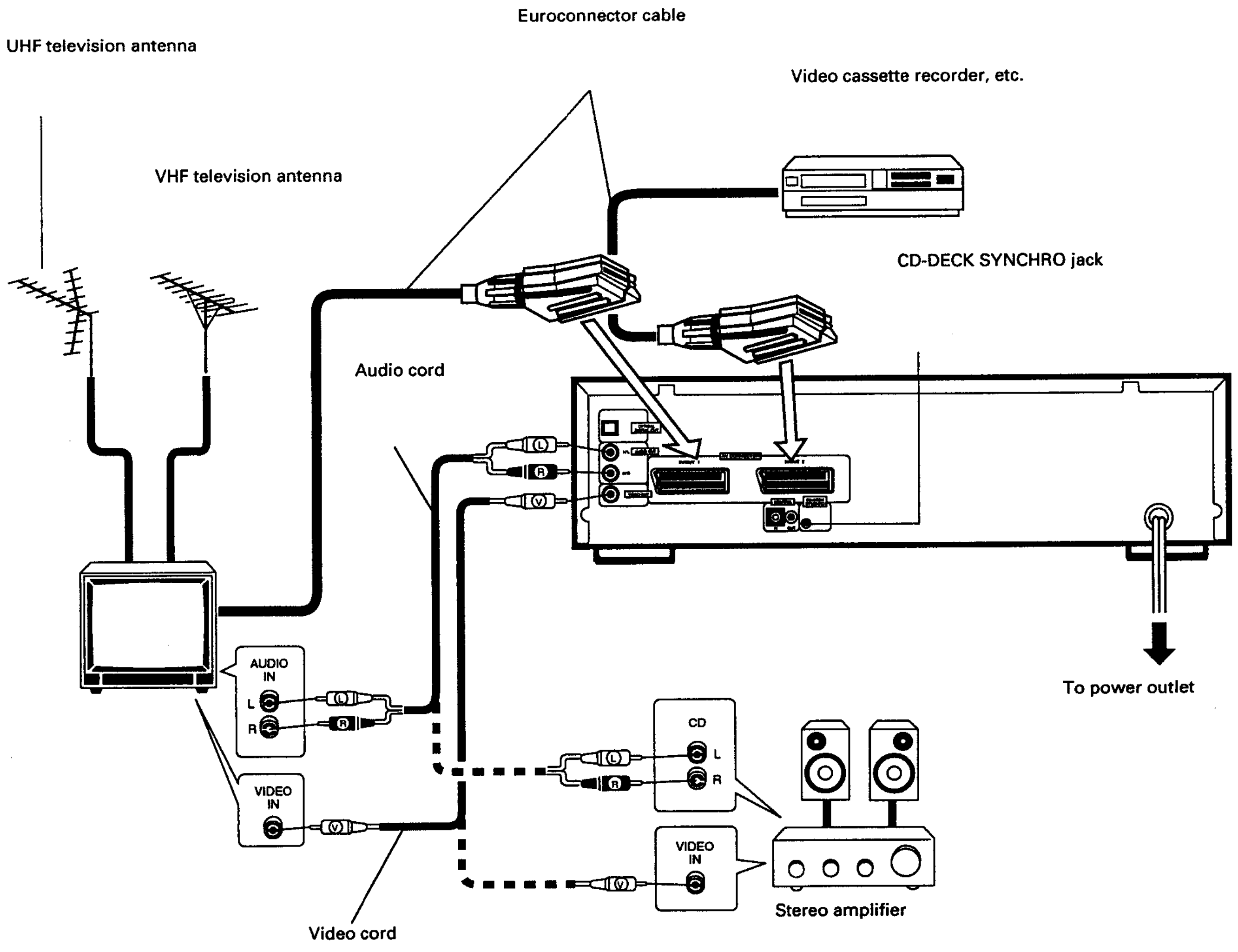
SYPS assembly

Although VWR1147 and VWR1146 are different in part number, they consist of the same components.

8. CONNECTIONS

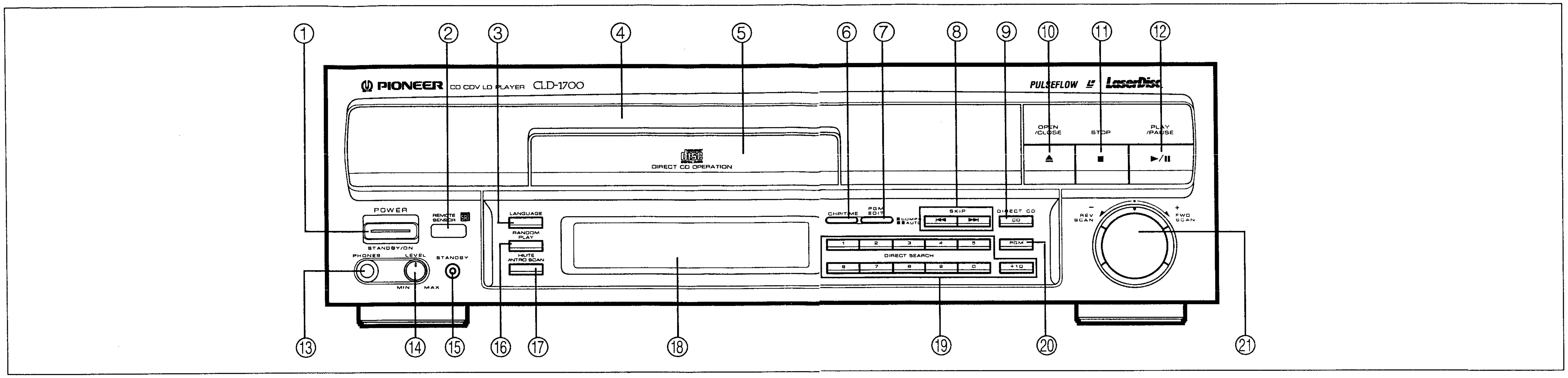
USING TELEVISION WITH AUDIO AND VIDEO JACKS

Player, stereo system, monitor television


Euroconnector cable
UHF television antenna
Video cassette recorder, etc.
VHF television antenna
CD-DECK SYNCHRO jack
Audio cord
To power outlet
AUDIO IN
L
R
VIDEO IN
CD
L
R
VIDEO IN
Stereo amplifier
Video cord

- Connect the VIDEO OUT jack of the player to the video input jack of the monitor television.
- Connect the AUDIO OUT jacks to the stereo amplifier AUX, CD, LD, VDP or other jacks, except the PHONO input jacks. The television speakers can also be used by connecting the television audio input jacks and the player AUDIO OUT jacks, however connection to a stereo amplifier is recommended to obtain superior audio playback quality for Compact Discs and LaserVision Discs. Do not change the television antenna connections.
- When using a video TV monitor (or TV) with AV CONNECTOR terminal, connect the AV CONNECTOR terminal to the AV CONNECTOR IN/OUT terminal of the player. Use supplied Euroconnector cable.
- Connect the power cord to an AC wall outlet.
- Combined system control is possible when a Pioneer television and audio/video stereo receiver are connected. Refer to page 28 for an explanation of the connection procedure.
- When making connections to stereo amplifier equipped with a built-in D/A converter and an optical digital jack, refer to the connection instructions
- When using a video cassette recorder with AV CONNECTOR terminal, connect the AV CONNECTOR terminal to the AV CONNECTOR IN/OUT terminal of the player.
  When a TV has been connected to the player using the AV CONNECTOR terminal and the power cord is plugged to an AC outlet, signals from the video cassette recorder are fed to the TV set via the player while the player is turned off.
- When using wide aspect type TV (16:9), be sure to connect the AV CONNECTOR terminal to the AV CONNECTOR IN/OUT terminal of the player.

9. PANEL FACILITIES


①
②
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⑥
⑦
⑧
⑨
⑩
⑪
⑫
PIONEER CD CDV LD PLAYER CLD-1700
PULSEFLOW
LaserDisc
OPEN /CLOSE
STOP
PLAY /PAUSE
DIRECT CD OPERATION
POWER
REMOTE SENSOR
STANDBY/ON
PHONES
LEVEL
MIN
MAX
STANDBY
LANGUAGE
RANDOM PLAY
HILITE /INTRO SCAN
CHP/TIME
PGM EDIT
SKIP
DIRECT CD
DIRECT SEARCH
PGM
+10
REV SCAN
FWD SCAN
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑

① **POWER STANDBY/ON switch**
Press to turn the power on and off.

② **REMOTE SENSOR**

③ **LANGUAGE button**

④ **Disc table**

⑤ **CD disc table**

⑥ **CHP/TIME button**

⑦ **PGM EDIT button**

⑧ **SKIP buttons**

⑨ **DIRECT CD button**

⑩ **OPEN/CLOSE button**

⑪ **STOP button**

⑫ **PLAY/PAUSE button**

⑬ **PHONES jack**

⑭ **PHONES LEVEL control**
Turn this control in the "MAX" direction to increase the output level from the PHONES jack. Turn this control in the "MIN" direction to decrease the output level from the PHONES jack.

⑮ **STANDBY indicator**

⑯ **RANDOM PLAY button**

⑰ **HILITE/INTRO SCAN button**

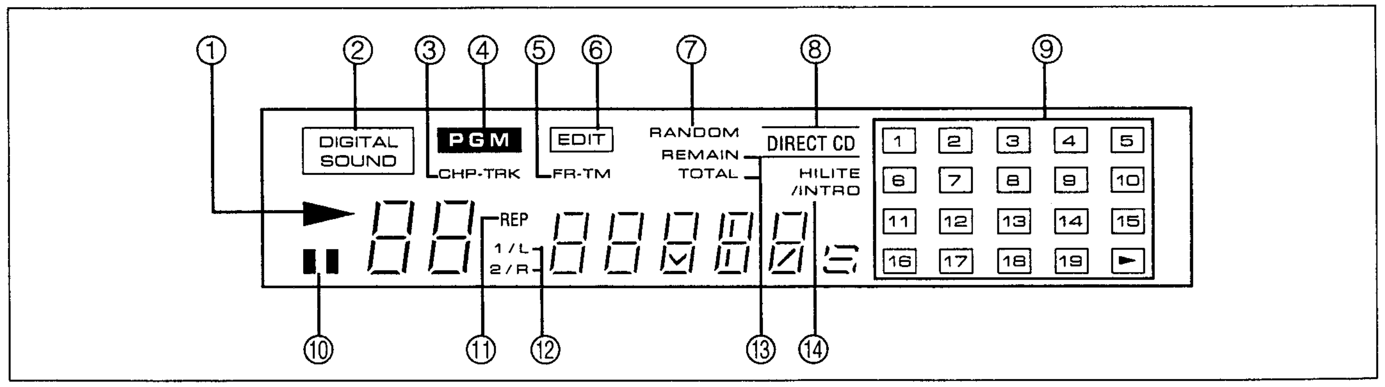
⑱ **Display window**

⑲ **DIRECT SEARCH/Digit buttons**

⑳ **PGM (program) button**

㉑ **SCAN control**

Display window


①
②
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⑧
⑨
DIGITAL SOUND
PGM
CHP-TRK
EDIT
FR-TM
RANDOM
REMAIN
TOTAL
DIRECT CD
HILITE /INTRO
REP
1/L
2/R
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19
⑩
⑪
⑫
⑬
⑭

① **► play indicator**
Lights during play. Blinks during search.

② **DIGITAL SOUND indicator**
Lights when the power is turned on. When an analog audio disc is played back, the indicator goes out.

③ **CHP-TRK indicator**
Indicates the CHP (chapter) number or TRK (track) number.

④ **PGM indicator**
Lights during program play and programming.

⑤ **FR-TM indicator**
Indicates the FR (frame) number or TM (time).

⑥ **EDIT indicator**
Lights when editing is performed.

⑦ **RANDOM indicator**
Lights during random play.

⑧ **DIRECT CD indicator**

⑨ **Visual calendar**
When a disc is loaded, all of the chapter/track numbers recorded on the disc light up on the display. If the disc contains more than 19 chapters/tracks, the ► indicator lights.
During program play, only the programmed chapter/track numbers light. When a disc without a TOC section is played, only the selection number being played lights.
When a CDV disc is loaded, the track numbers of the video part light followed by the track numbers of the audio part.
After a chapter/track is finished playing, the corresponding number goes out.

⑩ **II pause indicator**
Lights when the player is in pause mode.

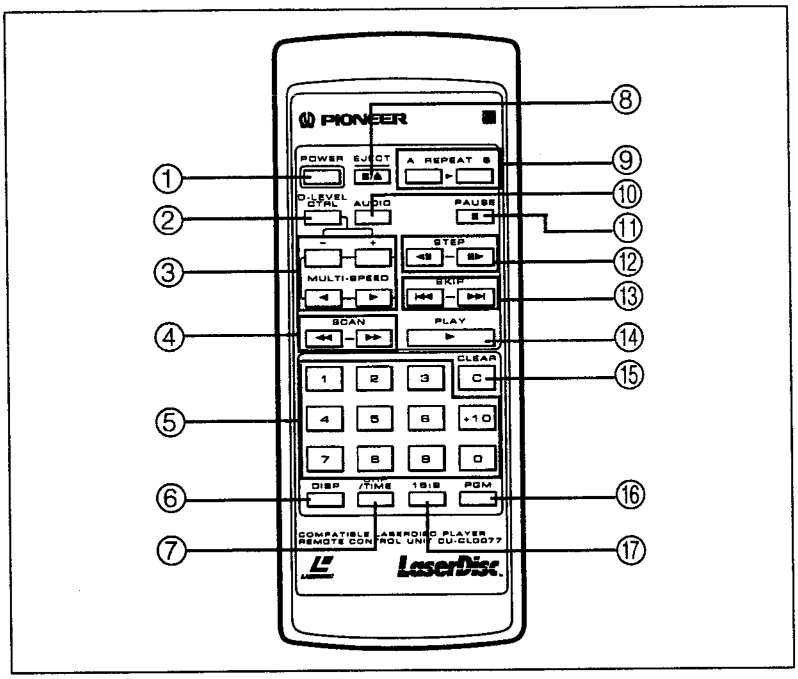
⑪ **REP indicator**
Lights during repeat play.

⑫ **1/L, 2/R indicator**
Indicates the audio output channel.

⑬ **REMAIN/TOTAL indicator**
Indicates the REMAIN TIME (remaining play time) or TOTAL TIME (total play time).

⑭ **HILITE/INTRO indicator**
Lights during Hi-Lite Scan or Intro Scan mode.

Remote control buttons with the same names or marks as buttons on the front panel of the player control the same operations as the corresponding front panel buttons.


PIONEER
POWER
EJECT
A REPEAT B
D-LEVEL CTRL
AUDIO
PAUSE
MULTI-SPEED
STEP
SKIP
SCAN
PLAY
CLEAR
1
2
3
C
4
5
6
+10
7
8
9
0
DISP
CHP/TIME
16:9
PGM
COMPATIBLE LASERDISC PLAYER REMOTE CONTROL UNIT CU-CLD077
LaserDisc
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰

① **POWER button**
Press to turn the power on and off.
② **D-LEVEL CTRL button**
③ **MULTI-SPEED buttons**
④ **SCAN buttons**
⑤ **Direct search/Digit buttons**
⑥ **DISP button**
⑦ **CHP/TIME button**
⑧ **EJECT button**
⑨ **REPEAT A/B buttons**
⑩ **AUDIO button**
⑪ **PAUSE button**
⑫ **STEP buttons**
⑬ **SKIP buttons**
⑭ **PLAY button**
⑮ **CLEAR button**
Used to clear the repeat mode, program mode, random play mode or hi-lite scan/intro scan mode. This button is also for use in correcting input digits.
⑯ **PGM (program) button**
⑰ **16:9 button**

10. SPECIFICATIONS

1. General

System .... LaserVision Disc system and
Compact Disc digital audio system
Laser .... Semiconductor laser wavelength 780 nm
Power requirements .... AC 220 - 230 V, 50/60 Hz
Power consumption .... 42 W
Weight .... 7.4 kg
Dimensions .... 420 (W) x 390 (D) x 122 (H) mm
Operating temperature .... +5°C ~ +35°C
(41°F - 95°F)
Operating humidity .... 5% ~ 90%
(There should be no condensation of moisture.)

2. Disc

LaserVision Discs

PAL disc

*Maximum playing times
30 cm active play disc .... 72 min/both sides
30 cm long play disc .... 2 hours/both sides
20 cm active play disc .... 28 min/both sides
14 min/one side
20 cm long play disc .... 40 min/both sides
20 min/one side

Spindle motor speed
Active play disc .... 1,500 rpm
Long play disc .... 1,500 rpm (inner circumference)
to 570 rpm (outer circumference)
(For a 30 cm disc)

Compact Discs

DISC Diameter: 12 cm, 8 cm, Thickness: 1.2 mm
Rotation direction (pickup side)
Counterclockwise
Linear speed 1.2 ~ 1.4m/sec
* Maximum playing time .... 74 min. 12 cm discs
20 min. 8 cm discs
(For stereo playback)

Compact Discs with Video

Disc Diameter: 12 cm, Thickness: 1.2 mm
Rotation direction (pickup side)
Counterclockwise
Linear speed .... Audio portion: 1.2 ~ 1.4m/sec
Video portion: 11 ~ 12m/sec
* Maximum playing time .... Video portion: 5 min. (CLV)
Audio portion: 20 min. (Digital)

* *Actual playback time differs for each disc.*

3. Video characteristics

Format .... PAL specifications
Video output
Level .... 1 Vp-p nominal, sync. negative, terminated
Impedance .... 75 Ω unbalanced
Jack .... RCA jack

4. Audio characteristics

Output level .... 200 mVrms
(1 kHz, –20 dB)
Jacks .... Both RCA jacks
Number of channels 2

Digital Audio Characteristics

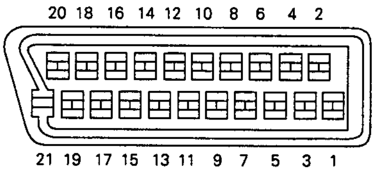
Frequency response	4 Hz - 20 kHz
SN ratio	105 dB (EIAJ)
Dynamic range	97 dB (EIAJ)
Total harmonic distortion	0.003% (EIAJ)
Wow and flutter	Limit of measurement (±0.001 % W.PEAK) (EIAJ)

5. Other Terminals

Control input/output .... Both miniature jacks
CD-DECK synchro .... Miniature jack
Optical digital output .... Optical digital jack
AV connector input/output .... 21-pin connector

This connector provides the video and audio signals for connection to a colour video TV monitor (or TV set) which has a "AV CONNECTOR" terminal.

PIN assignment



PIN no.		
	1 Audio 2/R out	17 GND
	3 Audio 1/L out	19 Video out
	4 GND	21 GND
	8 Status	

6. Accessories

Remote control unit (CU-CLD077) 1
Size "AAA" (IEC R03) dry cell batteries 2
Euroconnector cable 1
Audio cord 1
Operating instructions 1
Warranty card 1

7. Functions

Remote control unit operations (CU-CLD077)

	Function	Active play Disc (CAV)	Long play Disc (CLV)	Compact Disc with Video	Compact Disc
Basic Functions	Single-side play	YES	YES	YES	YES
	Pause	YES	YES	YES	YES
	Stop	YES	YES	YES	YES
Search	Fast forward (forward and reverse)	YES	YES	YES	YES
	Chapter/Track skip	YES	YES	YES	YES
	Direct chapter/Track number search	YES	YES	YES	YES
	Frame number search	YES	NO	NO	NO
	Time number search	NO	YES	YES	YES
	Absolute time search	NO	NO	NO	YES
Program	Chapter/Track program play	YES	YES	YES	YES
	Program correction	YES	YES	YES	YES
Repeat	Repeat between 2 points	YES	YES	YES	YES
	Memory repeat	YES	YES	YES	YES
	Chapter/Track repeat	YES	YES	YES	YES
	One-side repeat	YES	YES	YES	YES
	Program repeat	YES	YES	YES	YES
	Random repeat	YES*1	YES*1	YES	YES
	Program random repeat	YES	YES	YES	YES
Trick play	Still/Step	YES	NO	NO	NO
	Multi-speed (Forward/reverse 9-level variable)	YES	NO	NO	NO
Time display	Elapsed time display	NO	YES	YES	YES
	Absolute time display	YES*1	NO	NO	YES
	Remaining track time display	NO	NO	YES	YES
	Remaining total time display	YES*1	YES*1	YES	YES
	Total number of selections, total time display	YES*1	YES*1	YES	YES
Others	Compu program/Auto program edit	YES*1	YES*1	YES	YES
	Hi-Lite scan	NO	NO	YES*3	YES
	Intro scan	YES	YES	YES*4	NO
	Digital level control	YES*2	YES*2	YES	YES
	Audio channel selection (Stereo, 1/L, 2/R)	YES	YES	YES	YES

*1 Only discs with TOC
*2 Can only be used with discs with digital audio signal tracks.
*3 Audio part only
*4 Video part only

NOTE:
The specifications and design of this product are subject to change without notice, due to improvement.

PLAYER FUNCTIONS

- Display, Visual Calendar Display
- Intro Scan, Hi-Lite Scan, Direct CD, Digital Level Control, Random Playback, Program Random Playback and Compu Program/Auto Program Edit
- Digital Audio Signal for LaserVision Discs
- Last Memory